HISTORY

OF

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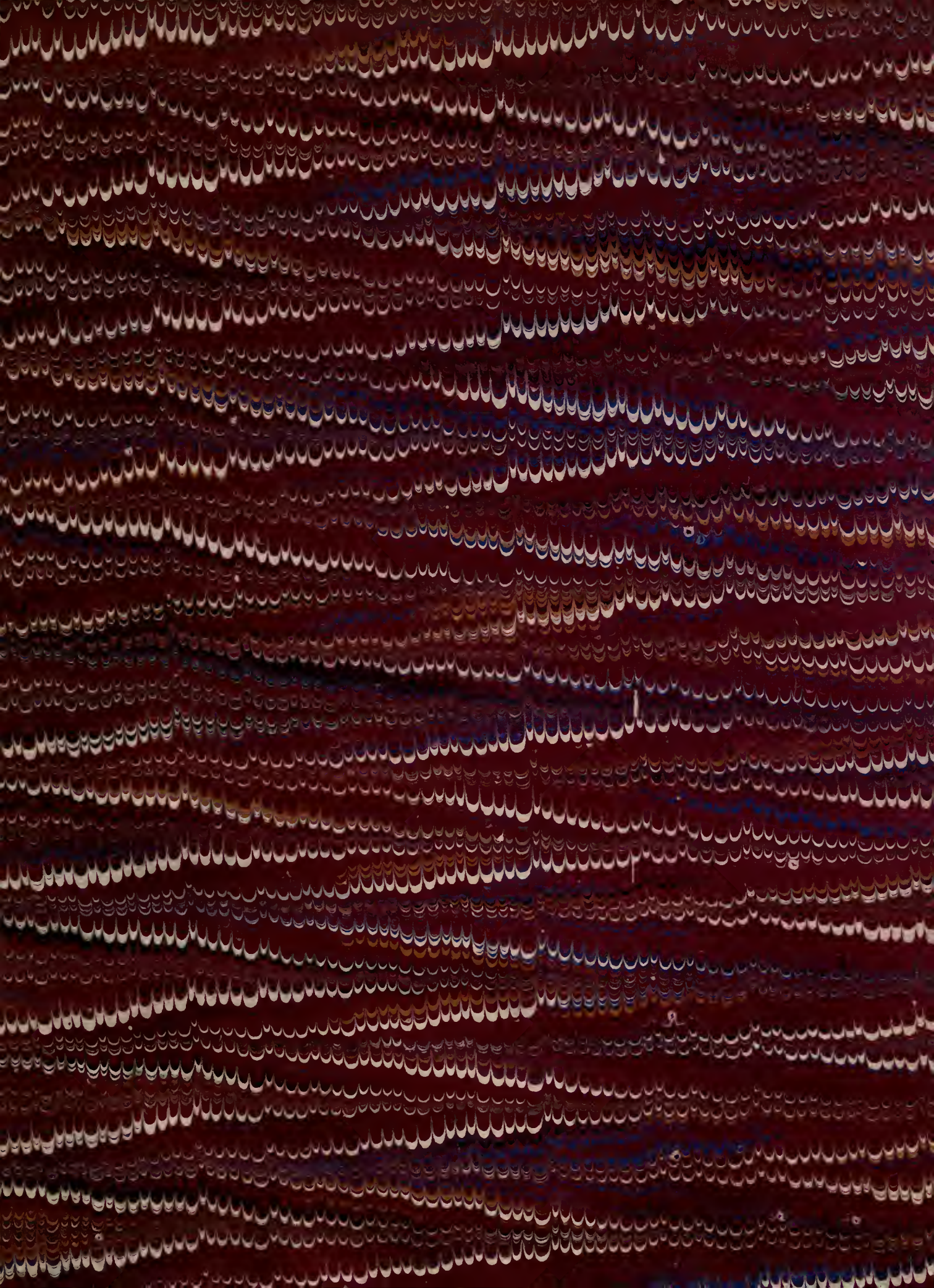
COAST[illegible] THE UNITED STATES.

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HISTORY

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DISCOVERY AND EXPLORATION

ON THE

COASTS OF THE UNITED STATES

J. G. KOHL, Ph. D.

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APPENDIX No. 19.

HISTORY OF DISCOVERY AND EXPLORATION ON THE COASTS OF THE UNITED STATES.

By J. G. KOHL, Ph. D.

PREFATORY NOTE.

The historical accounts here given of discovery and exploration on the coasts of the United States were prepared by Dr. J. G. Kohl, a geographer of distinction, at the instance of Prof. A. D. Bache, the Superintendent of the Coast Survey at the time (1854) of Dr. Kohl's visit to this country. But a few years had then elapsed since the beginning of the survey on the Pacific coast, and the want of an authoritative and connected account of early exploration upon that coast was greatly felt. Trustworthy data were needed to establish the origin of geographical names, to decide disputed points of orthography, to identify localities named by early explorers, and to show the condition of discovery and fix the limit of geographical knowledge at various periods.

The work undertaken by Dr. Kohl included, at the request of Professor Bache, in addition to the historical account, a general map illustrating it, a collection of maps showing the range and limits appertaining to each discoverer and explorer, a list of names of bays, capes, harbors, &c., with critical remarks, and a catalogue of books, maps, manuscripts, &c., relative to discoveries.

In so satisfactory a manner was this work performed for the Pacific coast that Dr. Kohl was asked to undertake a similar work for the coast of the Atlantic and Gulf of Mexico. Upon its completion the entire work was deposited for reference in the archives of the Survey. Means for its publication, as a whole, not having been available, it has now been deemed desirable to publish the historical portions in the form of an appendix to this report. To each memoir is appended a list of the collection of maps. Some of these maps are copied from originals, others from old manuscripts or rare prints, and those of more modern origin are of interest as links in the chain of historical connection.

ABSTRACT OF CONTENTS.

History of discovery and exploration on the Atlantic coast of the United States.

The Northmen (982 to 1,347).—Settlement in Gunbiorn's Land or Greenland in 982. Explorations from Greenland to the southwest in the years 1000 and 1001. Also between 1002 and 1007, followed by a settlement in Vinland—supposed to be on Narragansett Bay. Decline of the Scandinavian colonies in Greenland; last expedition to eastern coast of North America in 1347.

Sebastian Cabot (1497).—Voyage to Newfoundland, and thence southwardly—supposed as far as the entrance to Delaware Bay. Delineation of eastern coast of North America according to Cabot on map of Juan de la Cosa in the year 1500.

Ponce de Leon (1512).—Expedition from Porto Rico to the coast of Florida. Other explorers between 1512 and 1519.

Lucas Vasquez de Ayllon (1520–'25).—Voyages to the North American coast; explorations near Saint Helena Sound and a river to the south—supposed the Savannah River. Finds that Florida is a peninsula.

John de Verrazano (1524).—Expedition from Dieppe under the auspices of Francis I, of France. Voyage along the North American coast from the vicinity of Cape Fear, touching at the mouth of the Hudson; thence to the eastward, entering Narragansett Bay, and thence to the coasts of Maine and Nova Scotia.

Esteran Gomez (1525).—Expedition from Corunna to Newfoundland, and thence southward along the eastern coast of the continent. Names given to several localities.

English expedition (1527).—Voyage under the auspices of Henry VIII, of England, towards the coasts of Labrador, Cape Breton, and New England.

Spanish expeditions, Narvaez and De Soto (1528–'43).—Voyages to the Gulf of Mexico; explorations in Florida, Georgia, Alabama, and Mississippi.

Capt. Jean Ribaut, Capt. René de Laudonnicre (1562–'65).—Expeditions from Dieppe and Havre to the coasts of Florida, Georgia, and South Carolina.

Sir John Hawkins (1565).—Visit to the coast of Florida and anchorage at the mouth of Saint John's River. Voyage thence to the northeast.

Don Pedro Menendez (1565–'74).—Expedition of discovery and of occupation to Florida; establishment of a colony at Saint Augustine; circumnavigation of the peninsula; voyage to Chesapeake Bay.

Sir Walter Raleigh (1584–'86).—Explorations and settlements in Virginia and North Carolina, under the auspices of Queen Elizabeth, of England.

Capt. John White (1587–'90).—Voyages to and settlement at Roanoke Island.

Bartholomew Gosnold (1602).—Expedition from Falmouth, England. Explorations in the vicinity of Cape Cod and Martha's Vineyard.

Martin Pring (1603).—Voyage from Bristol, England, to the coast of New England to the north of Cape Cod.

Bartholomew Gilbert (1603).—Lands near the entrance to Chesapeake Bay, but is killed by the Indians, and expedition fails.

Sieur de Monts and Champlain (1605).—Expedition from Havre, under the auspices of Henry IV, of France. Explorations on the coasts of Newfoundland, Nova Scotia, Maine, and Massachusetts.

Capt. George Weymouth (1605).—Voyage from an English sea-port to the New England coast. Exploration of Penobscot Bay.

Capt. Christopher Newport (1606).—Expedition fitted out by the London Company for exploration and settlement in "South Virginia." Colony established at Jamestown, Va.

Capt. John Smith (1608).—Examinations of the shores of the Chesapeake to the head of the bay and of the rivers tributary to it.

Capt. George Popham and Capt. Raleigh Gilbert (1607).—Voyage from Plymouth, England, and settlement attempted at Cape Small Point, coast of Maine.

Copt. Samuel Argall (1613).—Breaks up the French settlements on the coast of Maine, from Mount Desert Island to the eastward.

Capt. John Smith (1614).—Publishes a map of Chesapeake Bay; explores the coast of Maine and compiles and publishes a map and description of that coast; also a narrative and map of New England.

Capt. Thomas Dermer, Christopher Levett (1618–'23).—Voyages to the coast of Maine and thence southward; examinations in Long Island Sound and in Chesapeake Bay.

Henry Hudson (1609).—Expedition from Amsterdam under the auspices of the Dutch East India Company. Examinations in Delaware Bay and in the Hudson River.

Cornelius Jacobs May (1614–'23).—Explorations between Cape Cod and Delaware Bay. Founds the first Dutch colonies on the Hudson and Delaware Rivers.

David Pietersz de Vries (1632).—Expedition from the Texel to Delaware Bay; exploration of the low shore of the Delaware peninsula, and examination of the coast between Delaware Bay and the New York entrance.

Brief notice of expeditions of the seventeenth century, concluding with reference to a map showing the outlines of the Atlantic coast, published by Laët, the Dutch cosmographer, in the year 1624.

THE NORTHMEN.

In the early history of Scandinavia it is known that maritime enterprise was a marked characteristic of the inhabitants. At the close of the ninth century some Northmen had passed southward through Italy and Sicily, and after leaving colonies passed across the Mediterranean to the coast of Africa. They founded settlements in France, England, Scotland, Ireland, Iceland, and on the coast of Greenland, and it is probable that one early northern adventurer visited the eastern coast of North America. Doubtless many fables were included in the narratives of their early navigation, but our present concern is with the facts which have led historians to regard Scandinavia as the "*storehouse of nations.*"

The first Scandinavian adventurer who landed on the shores of Iceland was a certain Naddod, in the year 861. Hiorleif, Ingulf, and other Northmen followed in the year 874, and in the course of a century the island was covered with flourishing settlements. Frequent voyages were made from thence to Norway, to Ireland, and to England. In the year 980 one of these Icelandic navigators, Gunbiorn, returned to his country, and stated that he had been driven out of his course so far westward as to have in view a great unknown land. When this report was known, Eirek, who had been an outlaw in Iceland, sailed in the year 982 westward to search for *Gunbiorn's Land.*

He wintered there, returned to Iceland and Norway, and praised the newly discovered land so highly that in subsequent years many Icelanders and Northmen went over to *Greenland* (as Gunbiorn's Land was soon called), and there formed a community. One of the settlers was a certain Herulf, who had left a son named Biarni at home. The son set out to follow his father, but was driven by stormy weather over to another unknown country, along which he coasted for some time. Finally he turned, reached Greenland, and there his report concerning the new western country was eagerly listened to, and especially by Leif, the son of Eirek, the first settler in Greenland. Lief bought the ship of Biarni, and with it sailed towards the southwest. He found a great rocky country, which he named *Helluland*, *i. e.*, the stony country. This was probably Newfoundland.

Leif, sailing farther to the southward and westward, again made the coast, and named it *Markland* [the country of the woods], and it is supposed to be Nova Scotia. Keeping the same general course, the vessel passed around a far projecting peninsula which was named *Kiliarnas*, *i. e.*, Ship's Nose. This was probably Cape Cod, and the convenient bay in which he anchored is judged to be Narragansett Bay. Leif and his men made on the shore of this bay a small settlement, called Leif's budir, *i. e.*, Leif's cottages. They explored the vicinity, and finding grapes in abundance they applied the name *Vinland*. In the following year, 1001, Leif and his men filled their ship with firewood, and returned to Greenland.

Other expeditions followed. One in the year 1002 was under the command of Thorwald, a brother of Eirek; another in 1005 was conducted by Thorstein; and in 1007 a third set out under Thorfinn Carlsefn. The last named adventurer intended to make a permanent settlement in Vinland. He therefore brought over 160 men. He was accompanied by his wife, Gudrid, and their son, Snorri Thorfinson, was born in Vinland. Gudrid subsequently made a pilgrimage to Rome, and perhaps in that way some knowledge of the western country was spread in Italy.

The Scandinavian colonies of Greenland remained for some years in connection with Iceland, attracted settlers from Europe, flourished, and finally covered a tract of nearly 400 miles along the coast of the peninsula. But activity ceased. After Thorfinn (1007) an expedition went occasionally. It is mentioned that a certain Gudleif Gudlaugson went to Vinland in the year 1028. He is said to have sailed southward to a country which he called Hvitramannaland, *i. e.*, the country of white men. Possibly the expeditions of the Northmen from Greenland to the eastern coast of North America were repeated, while the Greenland colonies flourished. The last was according to Rafn, the learned Danish investigator, performed in the year 1347. So this series of expeditions to America can be traced through four centuries, but even the memory of it was lost in the decline of Scandinavian colonies in Greenland. They seem to have been weakened by pestilence, and at times they suffered from the hostile attacks of the aborigines.

SEBASTIAN CABOT, 1497.

After the Northmen, the first European who touched on the Atlantic coast of North America was Sebastian Cabot, son of John Cabot, a Venetian merchant, who was settled in England in the time of King Henry VII. Columbus at the outset of his career had offered his services to the court of England, but there the offer was refused.

Cabot says that the report of the voyage of Columbus "increased in his heart a great flame of desire to attempt some notable thing." He believed, as Columbus did, that the eastern parts of Asia could not be very distant, and therefore he proposed to sail westward in high latitude, or, as he expressed the idea, "because he understood by reason of the sphere that the northwestern route would be a shorter trace to come to India."

The king ordered two caravals to be fitted out, and in the year 1495 issued letters patent, in which he granted to the undertakers and commanders of the expedition the usual rights and privileges "to discover, and conquer for him, the King of England, any yet heathen country, and to occupy it for him and for themselves as his lieutenants, vassals, and governors." In these royal letters Sebastian Cabot, his father, John, and likewise two brothers, are named as the grantees, and hence some writers have inferred that both father and son conducted the expedition across the ocean. But it seems more probable that the wealthy merchant, John Cabot, was named in the

royal letters only because he assisted the expedition with money. Moreover, Sebastian states that his father died previous to the year 1497, in which year the voyage was undertaken.

Cabot sailed westward, keeping along the 50th parallel to Newfoundland, which had been previously known to the Northmen under the name of Helluland. After making land he steered northward, but not finding the desired passage to China he turned south and passed along the coast of what is now known as the New England States. The southern limit reached has been the subject of doubt. Some suppose that he turned at the 38th parallel, but others judge that he went to the vicinity of Cuba. Peter Martyr, Gomara, and other authorities make it certain that he reached the entrance of Delaware Bay.

Hakluyt states repeatedly that Cabot drew maps and wrote reports of his discoveries, but they have been unfortunately lost. We have, however, a delineation of the eastern coast, according to Cabot's report, on the map by Juan de la Cosa in the year 1500. That map confirms the belief already expressed in regard to the southern limit of Cabot's voyage.

Some authors intimate that Cabot made voyages to America in the years 1498, 1499, and 1517, but the particulars of such, if the voyages were made, are not known to us. The Portuguese expeditions across the northern parts of America by the Brethren Cortereal, are of interest only in regard to the Arctic regions.

PONCE DE LEON, 1512.

Sebastian Cabot had "taken possession" in the name of the King of England of the eastern coast of the New World, and in later times the English founded on his discoveries their right to dominion. The Portuguese did not promptly pursue the northern discoveries commenced by the Cortereals. By the Spanish, the exploration of the northern part of Cuba was not taken in hand until the year 1508, and in that year their navigator, Ocampo, circumnavigated that island for the first time.

Excepting the French, Portuguese, and Biscayan fishermen, who, since 1504, yearly went to Newfoundland, we do not know with certainty of any European expedition to the eastern coast of America between the years 1501 and 1512, when Ponce de Leon led in that direction. Some years earlier he had conquered and settled the island of Porto Rico, and held possession there as governor. When deposed, in consequence of some misunderstanding with his officers, and with the court of Spain, he was rich. He was yet in the force and bloom of his life, and he was enterprising. He listened to what was related of unknown countries. The Indians told of a great country called *Cautio*, and of the existence of a fountain or river, *Bimini*, which had the quality of restoring youth and strength to those who bathed in its waters.

Attracted by the traditions, Ponce de Leon fitted out three ships and sailed with them on the 3d of March, 1512, from the harbor St. German, in Porto Rico. He passed along the northern side of the Lucayan Islands, kept a northwestern course, and near Cape Cañaveral saw the coast of the North American continent on the 27th of March (Palm Sunday), which the Spaniards call Pascua Florida de Resurreccion. At first he judged that the land in view was a small island, like one of the Lucayan Islands which he had just left, but he sailed along with the continuous coast in view until the 2d of April, and then applied the name, *La Florida* as well because of the flourishing aspect as also that he saw it first on the Sunday of Pascua Florida. He sought for a harbor, and not finding a good one turned southward.

On the 8th of May Ponce doubled a large cape where the currents gave much trouble, and which he therefore named *Cabo de Corrientes* (cape of the currents), which Herrera puts in latitude 28° 15′ north, and consequently it was Cape Cañaveral. In going southward several small islands were noticed but these cannot be identified, as many inlets have been opened and closed again in the course of time by the action of the sea.

Ponce de Leon doubled the Cape of Florida without attaching a name, and soon after discovered the Florida Keys, or Martires, the Tortugas, and the western coast of the Florida peninsula. On his return voyage to Porto Rico, one of the ships was sent in command of Perez de Ortubia and Antonio de Alaminos toward the northwest to search again for the island and fountain of Bimini. Their report is meager, and no mention is made in it of the coast of Florida. They appear to have sailed only amongst the Lucayan Islands.

Lucas Vasquez de Ayllon was on the coast in the year 1520, but a few years earlier some voyages of secondary interest were made. An English ship is said to have sailed at this period southward from Newfoundland to the Antilles and Porto Rico. Amongst Spanish authors who mention this voyage, Herrera puts its arrival at Porto Rico in the year 1519; others have put it in the year 1517. Herrera, whom we follow, says that "in the year 1519 arrived an English vessel in the island of S. Juan [Porto Rico], which was examined by Spanish officers, and the commander of which stated that they had been for the discovery of a northwest passage or oceanic route to the Gran Can, *i. e.*, to China, from England to Newfoundland, thence southwest to the river Chicora, and that from there they had come in a southern direction to Porto Rico." As the expedition is mentioned as English, some have supposed that Sebastian Cabot was the commander.

Cortes, in the same year (1519), sent out Antonio de Alaminos with dispatches for Spain. He passed through the Gulf of Florida and the Strait of Bahama, but did not land on the eastern coast of Florida, though at several times the land was in view. Passing by the Burmudas he returned to Spain.

Diego Miruelo, a well-known Spanish pilot, doubtless made voyages in these regions on his own account. His movements fill the interval between Ponce de Leon and Vasquez de Ayllon.

LUCAS VASQUEZ DE AYLLON, 1520–1525.

Lucas Vasquez de Ayllon was a Spanish officer eminent by literary attainments. He was some time auditor of the royal court of San Domingo, and had become wealthy in his employment. When laborers became scarce in the Lucayas and in the Antilles, Ayllon, with some others, made an expedition to the north to kidnap Indian slaves. They fitted out two vessels, and Ayllon took command. Diego Miruelo went as pilot. In the course of the year 1520 they followed the track of Ponce de Leon, and passing around the Lucayan Islands they arrived at the shore of a great country, which, by the aborigines, was called *Chicora*. On that part of the coast they named a cape "Cabo de Santa Elena," as it was first seen by them on the day of that saint. This was probably a point of land near Saint Helena Sound on the coast of South Carolina. In that vicinity Ayllon named a river after one of his captains, "*Rio Jordan.*" The extent of the voyage is not well defined, either by Herrera or Oviedo. Barcia says that the party landed at several places, and on nearly contemporary Spanish maps we find the names "Cabo S. Romans," "Riv. Canoas," "Cabo de Trafalgar," and others that suggest Ayllon as having applied them. It is, however, possible that some of them were not given by Ayllon on his first voyage in 1520, but rather on his second expedition in the year 1525. He went to Spain after his first voyage, and was commissioned by the king to explore, conquer, and settle that promising country. But by reason of various impediments his second voyage was delayed. One of the hindrances will be mentioned. A certain Ortiz de Matiençe, also a Spanish civil officer, and like Ayllon, provided with vessels, protested against Ayllon's expedition because one of Matiençe's ships had made the same discovery. But Ayllon, notwithstanding the protest, sailed to Chicora. He merely added another name, that of the river "Gualc" or "Gualdape," or, as Oviedo writes, "Guadalupe," which is stated as being about 30 miles south of the Point Saint Helena, and possibly it was Savannah River.

In an unfortunate expedition against Indians at some distance from the coast, Ayllon and many of his men were killed. The survivors of the party returned to the Antilles. Previously Florida had been regarded as an island, but the expedition of Ayllon determined its peninsular configuration.

JOHN DE VERRAZANO, 1524.

Christopher Columbus and his brother Bartholomew, before acceptance in Spain, had made propositions to the court of France, and at one time it seemed probable that their offer would be there accepted. French pirates and adventurers were early followers of the Spaniards to the West Indies. After the year 1504 French navigators of Dieppe and other ports of France crossed the ocean to the banks of Newfoundland and returned to Europe with fish.

Francis I was, however, the first French king who sent an expedition specially intended for

the discovery of new lands. The command of it was given to an Italian, John de Verrazano, who belonged to Florence.

At the end of the year 1523 Verrazano sailed from Dieppe with four ships. On his arrival at Madeira, only one vessel, the Dolphin, was found seaworthy, and in that, with fifty men, he started westward. After sailing about 900 leagues by his reckoning, and after being fifty days at sea, he sighted the coast of America in the neighborhood of Cape Fear. From thence he sailed northward, and, following the trend of the coast, must have passed the entrances of Chesapeake and Delaware Bays. Finally he reached a very pleasant place showing steep hills, and an exceeding great stream of water, so deep at the mouth that any great ship might pass up. He entered with his boats, and found the country thickly peopled. Circumstances did not permit him to proceed inland, so he sailed 50 leagues eastward as the trend of the coast was in that direction. From this it seems evident that Verrazano touched the mouth of Hudson River and New York Harbor. For some time the Hudson was called "the river of the hills or mountains." His mention of the trend of the coast eastward makes it certain that Verrazano was the first European who visited the entrance of the Hudson. Sailing along the sea coast of Long Island, he seems to have regarded it as part of the mainland; but in going eastward he soon discovered an island somewhat triangular in outline. This he named L'isle Claudia, in honor of the mother of Francis I. Some authors have judged this to be Block Island, but by others it has been, with more probability, taken as Martha's Vineyard. However that might have been, Verrazano sailed over to a great and commodious harbor or bay, in 41⅔ degrees of north latitude, and there remained fifteen days, trading with the natives and exploring the country. This bay was 20 leagues in circuit and contained five pleasant and fruitful islands, "among the which islands [he says] our great navy may ride safe, without any fear of tempest or other danger." From this description it seems clear that Verrazano had entered Narragansett Bay. It is remarkable that he was at this time the first to mention the name "Island of Rhodes," which afterwards was adopted as a designation.

On the 5th of May, 1524, Verrazano left, and sailing east and then north for 150 leagues, found the coast studded with crags, the shore having many turnings and windings between them, offering fair harbors. He counted thirty-two islands on that part of the coast. Plainly he was then on the coast of Maine. He does not mention the remarkable projection now known as Cape Cod. From the coast of Maine he sailed northeast about 150 leagues, and when off Newfoundland turned back and reached the coast of France early in July, 1524.

It is not known that Verrazano made any maps. In his report mention is made of latitude, and he assigned no names, excepting that of the island Claudia. But he indicates with tolerable accuracy the trending of the coasts and distances. He saw the entire coast from Cape Fear northward to the Bay of Fundy, and his descriptions are tolerable. From what he says, Narragansett Bay and Hudson River entrance can be readily identified. Ramusio says that Verrazano and several of his men were killed by savages; but some Spanish historians record that he was captured in 1524 and hanged by their countrymen.

ESTEVAN GOMEZ, 1525.

The Spaniards advanced slowly towards the north. Previous to the year 1525 not one of their navigators had passed the thirtieth parallel. Ayllon's north limit was the boundary of Spanish research in that direction. Beyond that voyages had been made only by the English, Portuguese, and French; by Cabot, Cortereal, Verrazano, and others. Yet none doubted that there was much land in the higher latitudes. Newfoundland and Labrador were included under the name "*Baccalaos*," and between that and Florida the Spaniards supposed there might be a strait. True, Cabot and Juan de la Cosa had represented the coast as continental, but they did not look into each inlet, nor explore as minutely as Verrazano. Moreover, maps of that period showed an open gap or branch of ocean between Baccalaos and Florida. So, also, years after the voyage of Columbus to Veragua and the Isthmus of Panama, maps showed a *channel*, which it was thought might have been overlooked by that navigator. In the year 1525 the Spaniards fitted out an expedition in the hope of reaching China by a water passage around the continent of North America. Estevan Gomez, who had been with Magellan, was put in charge, and his expectation

was to repeat in a high northern latitude what had been done at the southern extremity of South America. In fact, the notion was then somewhat common that geographical configuration at the north should correspond with that at the south.

Estevan Gomez sailed with one ship from the port of Corunna, at the end of the year 1524, directly over to Baccalaos [Newfoundland], and there turned and passed southward along the eastern coast of North America. There is no journal of his voyage nor copies of maps which he doubtless made. Spanish authors merely allude to the voyage. It is known, however, that he followed the course of his predecessor, Verrazano, merely reversing the order by passing from north to south. Oviedo says that Gomez sailed southward to the fortieth parallel, and that he brought some Indian prisoners home to Spain.

Herrera says: Gomez sailed much further to the southward, and traveled from Florida to Cuba where he remained some time, and then returned to Europe. After an absence of ten months he was again at Corunna in November, 1525. That he brought home a map and description of the country explored is evident from the map of America made by Diego Ribero a few years after. Without doubt he took the configuration of the coast from Gomez, as neither before nor soon after was that part of the coast visited by any Spaniard.

Ribero gives to the entire region the name of the explorer, "*Tierra de Estevan Gomez*," and this may be regarded as the first name applied to New England. It was retained on nearly all maps of the sixteenth century. Gomez Land was the name commonly appplied, until it was displaced by English discoveries.

Two capes marked by Gomez appear on nearly all subsequent maps, namely: "Cabo de Muchas Islas" [cape of many islands] and "Cabo de Arenas," *i. e.* the cape of sand. The first seems to be Cape Elizabeth, on the coast of Maine; the other was either Cape May or Cape Henlopen. The sea between the extreme capes is marked on the map "Archipelago de Estevan Gomez," but on subsequent maps the name of the navigator is omitted. To the northeast of Cape Cod a broad inlet is invariably marked as "Rio de las Gamas" (Deer River), and perhaps it is what is now known as Penobscot Bay.

ENGLISH VOYAGE, 1527

Hakluyt relates (Vol. III, p. 129) that Master Robert Thorne, of Bristol, a man of learning and influence, moved King Henry VIII to encourage discovery in the northern parts of the new world.

Two ships were fitted out, one of them bearing the name Dominus Vobiscum. One of the vessels was wrecked on the coast of Labrador, the other went towards Cape Breton and the coast of New England. After landing to look at the country, the vessel returned home early in October of the year 1527.

SPANISH EXPEDITIONS, 1528–1543.

Estevan Gomez and Lucas Vasquez de Ayllon returned from the eastern coast of North America, one to Spain, the other to the Antilles with miserable Indian prisoners or slaves in lieu of expected riches. But the impression yet remained that wealth might be gained by going further westward and that a region of gold might be reached by passing through the Mexican Gulf. There followed consequently two land expeditions in that direction, one under Narvaez in the year 1528; the other under Fernando de Soto in 1538. The ill-fated expedition of Narvaez was attended by five vessels which carried four hundred men and eighty horses. After landing at Tampa Bay the vessels passed on and the land force perished in the attempt to pass westward along the coast in boats.

De Soto wintered at Apalachee and then marched through territory which is now known as the State of Georgia. His land of promise was "*Cofachique*," a name by which Spanish authors have designated Savannah River. On reaching the country of the Licenciado Ayllon, he found amongst the Indians some iron tools and weapons, probably remains of Ayllon's expedition of 1520 and 1525. The Indians described to De Soto several encounters with Ayllon's men.

Hoping steadily to find in the interior another land like Mexico or like Peru, the party examined the country and probably were in the region now occupied by Pensacola. After two years

of travel and toil, De Soto ended his life in the interior of the Mississippi country. His two captains, Diego Maldonado and Gomez Arias, waited in vain according to his orders, supposing that he might have returned from the interior by another route, but finally they made a series of expeditions along the Atlantic and Gulf coasts, but of these it is probable that detailed reports were not written. Garcilasso, Herrera, and Barcia assert that the expedition went along over the Atlantic coast northward to "*Baccalaos*," and looked into every harbor and every bay in search for De Soto.

In the interval of thirty-six years preceding the French expedition under Ribaut in 1562 there is no record of any Spanish exploration. The maps and geographical descriptions of that period are marked with new names, but we cannot refer them either to Estevan Gomez (1524) or to Ayllon (1520–1525).

The most remarkable description of that time is contained in the second volume of Oviedo's History of the West Indies. We here append a summary; but it is to be regretted that the date of the manuscript is uncertain. We know, however, that Oviedo published the first volume of his history in the year 1535; and that in the year 1557, when he died, the second volume, which contains the description here in question, was ready for the printer.

Oviedo begins his description at the southward with what he calls "*Punta de la Florida*," and that he states as in latitude $25\frac{2}{3}°$ north. The cape discovered by Ponce de Leon in 1512, and which he named Cabo de Corrientes [Cape of Currents], is called by Oviedo *Cabo de Cañaveral*. But no practical purpose would be met by recapitulating the names given on old Spanish maps to particular places. The "Cape Trafalgar" of that period is our Cape Hatteras. Oviedo methodically states distances from points and river entrances in going northward. Few of the places can be identified, but his description of Saint Antonio River, which is "in a line direct from the north to the south," leaves little doubt that he passed up the *Hudson River*. Estevan Gomez was in that vicinity in the year 1524. From Oviedo's description it is easy to identify Long Island and also Long Island Sound, as well as Narragansett Bay. Excepting Gomez and Ayllon, Oviedo does not name any explorer as affording him knowledge, and it cannot be stated with certainty which of the navigators first saw and named Cape Trafalgar [Hatteras], or Saint Mary's Bay [Chesapeake], or Cape Arenas [Henlopen], and others.

CAPTAIN JEAN RIBAUT.

Admiral Coligny, as chief of the Huguenots, sought an asylum for his persecuted brethren, and with the permission of the King (Charles IX) fitted out two vessels in the harbor of Dieppe. Ribaut was intrusted with the command of the expedition. He sailed on the 18th of February, 1562, and at the end of two months sighted a low cape which he named "Cap François." This was doubtless some object seen on the coast of Florida near Saint Augustine. He went northward from thence, probably because he wished to avoid ground known to be under Spanish dominion. After sailing no great distance he entered a broad river on the 1st of May, and named it "La Riviére de May." This was doubtless the Saint John's. In coasting 60 leagues further he discovered and named eight rivers, giving generally the names pertaining to well-known rivers in France. Finally the vessels entered a spacious sound and found it more commodious than others. This was by Ribaut named *Port Royal*, and there he concluded to make a settlement. He explored the branches, and named them, but the names were not retained on subsequent maps. Some of his soldiers, under command of a Captain Albert, were left in a fort which was named in honor of the King of France, "*Charles Fort*." Ribaut went on to the mouth of Edisto River, and there finding that his provisions were becoming scarce he turned eastward and arrived on the coast of France on the 20th of July, 1562. Civil war then raged in that kingdom, and the little colony on the coast of North America was left without succor. By the efforts of Coligny some vessels were sent to protect the national interests; but in the interval the colony at Charles Fort suffered for want of provisions. Dissensions broke out in the party, and the commander, Captain Albert, was killed by turbulent members in his attempt to quell the revolt. At last they built a vessel, trusted themselves to the ocean, and when in great distress were picked up at sea by an English ship, and thus returned to Europe.

In the year 1564 three vessels were fitted out, and the captain (René de Laudonniere) who had accompanied Ribaut on the first voyage was put in charge of the little fleet, and sailed from Havre on the 22d of April, 1564. He reached the coast of Florida on the 22d of June, and from his description of the landfall must have been near Saint Augustine entrance. The expedition was unfortunate. Most of the companions of the adventurer were killed in contests with the Spaniards. Laudonniere gives the particulars in his "*Histoire Notable de la Floride*," which was published in 1586. Like other commanders of new settlements in America, he encountered mutiny. A party of his men, thinking it better to try some expedition against the Spanish settlements toward the south, seized one of his ships and sailed to Cuba and Jamaica. With the others Laudonniere passed the winter and spring of 1565 in exploring the coast. On the 30th of August the English navigator, Sir John Hawkins, appeared on the coast and anchored at the mouth of May River with four vessels. Hawkins was then on his second return voyage from the West Indies, and had on board a Frenchman who had been with Ribaut in 1562 at Port Royal. At that place Hawkins took in fresh water, visited Laudonniere, and sold to him one of the English vessels. Thus provided, the Frenchman was about to return to Europe, when, on the 28th of August, his former commander, Ribaut, arrived with a force suitable for any ordinary expedition.

SIR JOHN HAWKINS, 1565.

Before relating the particulars of Ribaut's second voyage, it is proper to mention that after Hawkins ranged along the coast of Florida and left Laudonniere, as already stated, the English commander sailed northeast as far as Newfoundland. His voyage is described in Hakluyt's third volume. Doubtless he made a map of this survey, as he was the first English navigator who closely examined the coast of Florida, but the existence of such map is not known.

On his second voyage Ribaut arrived at the river May on the 28th of August, 1565, and only a week later a strong Spanish fleet appeared there under the command of Don Pedro Menendez, with orders from the King of Spain to eject all heretics from the country of Florida, that territory being from olden time regarded as Spanish dominion. The Spanish forces settled at a position a little south of May River and then moved against the small French force under Ribaut and Laudonniere. Jean Ribaut and many others were killed in the attack. Laudonniere and some others escaped in one of the vessels and reached France at the end of the year 1565. Two years later (1567) the French captain, Gourgues, undertook to chastise the Spaniards. His expedition was conducted with courage, and it is remarkable, also, for the quick voyage made by the party.

Gourgues sailed from France on the 22d of August, 1567, with one hundred and fifty soldiers. He reached Florida in October, and in the course of the winter destroyed three Spanish forts at Saint John's River and Saint Augustine Harbor, which were defended by numbers greater than his own. The garrisons were dispersed, but with his limited force, being unable to keep possession for France, he sailed from Florida on the 3d of May, 1568, and after a voyage of thirty-four days landed at Rochelle. But Charles IX of France regarded these expeditions to Florida as being in the interest of Huguenots and favored by Coligny. The King was unwilling to give any offense to the Spanish court, hence no other effort was made from France. The names given by adventurers from that power, with a single exception, "Port Royal Entrance," disappeared from maps of that period.

FLORIDA, 1565–1574.

Don Pedro Menendez de Aviles had distinguished himself as a commander of fleets and expeditions in the service of the King of Spain. A son of de Aviles had served in the West Indies and was finally shipwrecked on the coast of Florida, where he was supposed to be in captivity amongst the savages. The father was permitted to fit out an expedition for search, and was commissioned also to explore the country and to make maps of the bays, harbors, capes, and other geographical features of Florida.

While Menendez was yet in port he had news of the French expeditions of Ribaut and Laudonniere, and it was rumored that a large reinforcement was on the way to Florida. The King of Spain therefore enlarged the fleet and army of Menendez, and directed him to eject all foreigners and intruders from the country in which he was to operate.

Menendez sailed from Cadiz on the 29th of June, 1565, with thirty-four vessels and about three thousand persons. But the ships were separated by storms. The commander, with some of the ships, sighted the coast of Florida on the 28th of August, the day of Saint Augustine. Where the French had settled was not known. They were supposed to be northward, and the fleet moved in that direction. A harbor was entered and explored. Laudonniere, in the year 1564, had named it Riviere des Dauphins, but Menendez called it San Augustin.

Learning from the natives that the French were on the coast farther north, Menendez sailed on and found them at the mouth of the river May, but they avoided his intended attack. Not deeming it advisable to move on their fort without providing defenses on the coast for an emergency, he returned to Augustine Harbor and there erected a fortified camp. Soon after he marched and attacked the French fort "Caroline" by land and killed the greater part of the garrison and settlers. He applied the name San Mateo, and the river May took then the same name. The vigorous pursuit of the French led Menendez to various parts of the region, and he was thus engaged during eight years after the year 1566. He established a small fort not far from Cape Florida, in the Indian province of Tegnesto; the fort Santa Lucia, south of Cape Cañaveral, at an indentation which the Spaniards called "Puerto de Is;" the fort in Saint Augustine Harbor; the fort San Mateo, on the river May, *i. e.*, Saint John's River; and the fort San Felipe, at Saint Helena entrance. He dispatched also a captain with thirty soldiers and some Dominican friars as far north as Chesapeake Bay, but that expedition was unfortunate. The party deeming it inexpedient to settle there sailed for Spain.

In the course of nine years Don Pedro Menendez sailed at least twelve times around the peninsula of Florida. The historian Barcia records him as having a more intimate knowledge of the coast than any man before his time. He explored the interior also, along the Saint John's and the Rio Salado, which it was supposed might be a passage toward the East Indies.

Of the expeditions of Menendez the most interesting is recorded in the narrative by his nephew, Pedro Menendez Marquez, who was an able seaman and afterwards a commander of Spanish fleets. The nephew was accompanied by four ships and one hundred and fifty men. Barcia states that the exploration commenced at Cape Florida and was prosecuted northward beyond the entrance to Chesapeake Bay. This bay (says Barcia) is 3 leagues broad at its entrance and it stretches towards the north-northwest, and has many rivers and ports on both sides. His mention of soundings agrees so well with our charts that he must be regarded as one of the best amongst early explorers of Chesapeake Bay.

Menendez died in the year 1574, soon after his return from Florida. His forts and colonies were deserted, and it may be said that with him ended the age of Spanish expeditions on the Atlantic coast.

SIR WALTER RALEIGH.

Queen Elizabeth of England granted to Raleigh, in the year 1584, certain letters patent, nearly in tenor like those granted by Henry VII to Sebastian Cabot; and thus Raleigh was allowed to fit out naval and military expeditions, and to "discover, search, find out, and view such remote heathen and barbarous countries and territories as were not actually possessed of any Christian prince, and to hold them as her vicegerent." This patent was issued on the 25th of March, 1584, and on the 27th of the ensuing April the first expedition, fitted out by Raleigh at his own charge, sailed under his command.

Raleigh had interested in his enterprise some wealthy merchants and other gentlemen, and at their joint cost two vessels were provided with crews. They sailed from the Thames early in the year 1584, under command of Philip Amadas and Arthur Barlow, with instructions to explore the east coast of Florida, and find some convenient place for settlement. As usual at that time, the vessels made for the West Indies entered the Gulf Stream between Cuba and Florida, and then went north and entered some convenient harbor. That they entered Ocracoke Inlet seems probable, as the report says that after entering they sailed 7 miles north to the island of Roanoke. They named the entrance "Wokoken," probably from Indian pronunciation. In fact the first adventurers on the coast of Virginia generally adopted Indian designations. On the first map of Virginia (by John White) there is only one European name, that of "Virginia."

Amadas, Barlow, and their men did not advance westward into the sound which is now known as Pamplico Sound. They anchored at Roanoke Island. There they had some friendly intercourse with the aborigines, and from them acquired names for the parts of that region. The river which enters the sound, then called the river Neus, bears at this day the name Neuse River. In September, 1584, they returned to England, and their favorable report suggested to Sir Walter Raleigh the proposal that the country should be named "Virginia," which was done in honor of Queen Elizabeth.

Raleigh hastened preparations for an expedition to further explore and make settlements in the country. Seven vessels were fitted out and placed in charge of Sir Richard Grenville. Of the crews, most of the men had been in the earlier expedition, and Captain Amadas accompanied the party. The vessels sailed from Plymouth on the 9th of April, 1585, and, as usual, made for the West Indies and passed in the Gulf Stream to the northern part of Florida. On the 23d of June they were near a cape and were in danger of shipwreck. This was named "Cape Fear," and three days afterwards the vessels anchored in Wocokon Inlet, which is now known as Ocracoke Inlet. Grenville passed seven days in exploring Pamplico Sound. From Hatteras Inlet a colony of one hundred men was sent to Roanoke Island under Master Ralph Lane, and, leaving Master Philip Amadas in general command, Grenville returned, and arrived in England on the 18th of October, 1585.

Lane and Amadas passed the winter of 1585–'86 on Roanoke Island, and in the spring made excursions toward the south and also west and northwest. They explored the expanse now known as Albemarle Sound and also Pamplico Sound, and went as far north as Chesapeake Bay. Doubtless the geographical knowledge thus gained was laid down on the earliest map of Virginia, which is ascribed to John White. It was first published by De Bry, in the year 1590. Ralph Lane introduced the name "Chesapeake Bay." The Indians living on its shores he calls "Chesepians." Albemarle Sound he designates "Sound of Weapomeiock"; the Chowan River, which falls into it, the "River of Chawanaok"; and Roanoke River, as the "River of Moratue." This last he explored in boats to a distance of 60 miles, and supposing that the source was near Mexico, and that by following the channel a passage might be made to the South Sea, he traced it to the mountains in hope of finding silver. Soon after, disputes with the natives brought the colonists into distress. The supplies promised by Raleigh and Grenville did not arrive. Fortunately, Sir Francis Drake, on his return from the West Indies and Florida, inquired, in order to report the state of the colony in England. He offered provisions, and a vessel and boats, but the discouraged colonists requested him to take them home, so the first Virginia colony arrived with Drake at Portsmouth on the 27th of July, 1586.

Meanwhile, Raleigh had dispatched a ship with provisions for the relief of the colony, and soon after three ships under Sir Richard Grenville. All arrived safely not long after the departure of Drake; but finding no one alive at the site of the colony, Sir Richard left fifteen men, provisioned for two years, on the Island of Roanoke. The ships then returned to England. Of these men nothing was heard afterwards. They perished, leaving no record.

CAPTAIN JOHN WHITE, 1587–1590.

This commander, who had been with Grenville, was sent out in the year 1587 with three vessels. At the instance of Sir Walter Raleigh, who provided the means, White was then styled "*Governour of the citie of Raleigh in Virginia.*" White landed the colonists on Roanoke Island, and then returned to England for further supplies. But the Spanish armada was then about to sail for England. All means of defense were needed there, and the colony at Roanoke was of necessity left to its own resources. In the spring of 1590, however, John White again sailed with three vessels, but could find no trace of the Roanoke settlement. The name "Croatan," cut in a tree, was taken as intimating that the colonists had gone there, but White encountered heavy and continuous tempests and was forced to leave the unsafe roadstead at Hatteras. At Roanoke he lost many of his best men, and some boats and anchors. This was the last of a series of unfortunate expeditions to Roanoke. Raleigh and his associates had expended much money, and had fitted out about twenty vessels. More than two hundred colonists perished in the settlement.

COAST OF NEW ENGLAND, 1602–1605.

After the time of Verrazano and Estevan Gomez (1524–'25) and the voyage of the English ships in 1527, we know not of any expedition to the shores of New England until the year 1602. The French expeditions under Cartier and his successors were confined to the region of Canada. The voyage of Sir Humphrey Gilbert was intended for the acquisition of Newfoundland, but was unfortunate. His vessel, when returning, foundered at sea, on the 12th of September, 1583. At that period many French, Portugnese, and English fishermen resorted to the same quarter, but nothing was thus added to geographical knowledge. The maps were such as were given by Gomez and Verrazano; and the coast was designated generally as Norumbega. A great river was marked with that name, but on some maps "Rio de Gamas," *i. e.*, Deer River. The island "Claudia," mentioned by Verrazano, was graphically conspicuous; but the configuration of the coast was very erroneously represented; on some, so prominent a feature as the Bay of Fundy is not shown. By Spaniards the region was mentioned as the "Northern parts of Florida." The French named it "Nouvelle France"; and after Raleigh's expedition the English styled it as the "Northern parts of Virginia."

After White's unfortunate voyage in 1590, twelve years elapsed without further action on this part of the Atlantic coast.

GOSNOLD AND GILBERT, 1602.

Capt. Bartholomew Gosnold sailed in a small bark, with thirty-two men, on the 26th of March, 1602, from Falmouth, England. From the Azores he steered due west, but all preceding navigators, in sailing for America, shaped their course for the West Indies. He reached the coast in the vicinity of the forty-third parallel, and there his men took great numbers of codfish. The nearest cape received at that time the name "Cape Cod," and the Indians were found in possession of some European implements. Gosnold, sailing southward, passed the island of Nantucket, but went ashore at the next and named it "Martha's Vineyard," because, as he says, it abounded in strawberries and other fruits. He found also deer and other animals. In crossing to the mainland he passed several small islands. His men were willing to remain, but not being well provided, they sailed eastward, and arrived in England on the 23d of July, 1602.

MARTIN PRING, 1603.

Soon after the return of Gosnold, the mayor of the city of Bristol (John Whitson), the historian Richard Hakluyt, and other gentlemen, formed acompany and fitted out two vessels, which were placed in command of Martin Pring. He was accompanied by Robert Salterne, who had been one of Gosnold's pilots. The vessels reached the coast of America somewhat north of the forty-third parallel. The country seen was high and covered with woods, and hence the landfall was certainly north of Cape Cod. It was probably in the neighborhood of Penobscot Bay. He named an island "Fox Island," and going southwest he entered several rivers, and finally passed into Cape Cod Bay, which had been missed in the preceding year by Captain Gosnold. After lading his vessel with sassafras, which was an object of trade with the first explorers of the coast of New England, Pring sailed eastward and reached home in October, 1603.

BARTHOLOMEW GILBERT, 1603.

An ineffectual attempt was made by Captain Samuel Mace, in 1602, to settle in Virginia. In that year Bartholomew Gilbert had been with Gosnold to seek out the position of the settlers left in those parts by Sir Walter Raleigh in the year 1587, but he was unfortunate. He landed near the entrance of Chesapeake Bay, but was slain by Indians, with his principal men. So, without effecting anything in the way of exploration, the vessel returned to England in charge of Master Henry Sute.

SIEUR DE MONTS AND CHAMPLAIN, 1605.

Henry IV of France commissioned the Sieur de Monts, a very enterprising navigator, to conquer and settle the countries in La Nouvelle France between the 40th and 46th parallels of

latitude, and to him the King issued a commission as lieutenant-general of such territory in America.

De Monts sailed on the 7th of March, 1604, from Havre, and by the usual route of French vessels reached Newfoundland, Campseau, and l'Acadie [Nova Scotia]. He continued westward, and finally passed southward to the 40th parallel. Passing around Cape Sable he entered what was then called "La Baye Françoise," but which is now known as the Bay of Fundy. On the 24th of June (day of John the Baptist), he entered a river mouth, and hence the name. One of his officers examined the river to a distance of 50 leagues. From the St. John River, De Monts, who on this voyage was accompanied by the Sieur Champlain, went 24 leagues further westward and entered Passamaquoddy Bay. They settled upon an island in Schoodic River, and named it "*Isle de St. Croix.*"* After deciding to winter in the place, the larger vessels were sent to France. The winter being severe, it was deemed expedient to seek a place for settlement further southward, but it seems probable that they went no further than Penobscot Bay. The configuration of the entrance, in the descriptions of De Monts and L'Escarbot, is compared to the figure of the Greek letter *Lambda*. Further west De Monts entered another large river which the Indians called "*Kinibeke;*" and in the same direction a bay was entered and named "La Baye de Marchin," after a French officer. This no doubt is what is known as *Casco Bay*.

Near Cape Cod the party remained for some days, and gave it the designation "*Cape Malebarre.*" But, being then short of provisions, the vessels returned to St. Croix. De Monts was succeeded by the Sieur du Pont, who fitted out a vessel at Port Royal, in Nova Scotia. He was thrice driven back by storms, and in a third attempt the bark was wrecked. The crew was saved, but the disaster brought to a close French enterprise on the coast of New England.

CAPTAIN GEORGE WEYMOUTH, 1605.

Early in the reign of James I of England, maritime research was active. Two of the patrons of that period were Thomas Arundel, Baron of Wardour, and Henry, Earl of Southampton. They employed Weymouth and fitted out for him a vessel with the requisite provisions, and a crew of twenty-nine men. Weymouth sailed from England while De Monts was near the Bay of Fundy, and both navigators passed along the eastern coast of America. The first named came within sight of the coast near Cape Cod in the middle of May, 1605, and anchored in what he calls "Pentecost Harbor," because it was entered on Whitsunday, as stated in Captain Smith's narrative. The coast was high and studded with islands, and high mountains were seen in the interior. This Pentecost Harbor is supposed to be the mouth of St. George's River. The island lying out seaward Weymouth named St. George Island. There Weymouth planted pease, barley, and garden seeds, and early in June, 1605, explored Penobscot Bay, which in the same year the Frenchman, De Monts, had examined and named Pentagoet. In the middle of June Weymouth sailed for England.

CAPTAIN CHRISTOPHER NEWPORT, 1606.

The expeditions of Gosnold, Pring, Weymouth, Gilbert, and others, were fitted out by separate companies, but these were by order of the king (James the First) placed under the same General Council of Government. He declared that Virginia belonged to England by old and later discoveries, and that explorations had been extended from the 34th to the 45th parallel of north latitude. By royal order the region was to be regarded as divided between North Virginia and South Virginia, the division line being about midway between the 30th and 40th parallels. The exploration and settlement of South Virginia he committed to the London Company; North Virginia was given to the so-called Plymouth Colony, and ample privileges were granted to both.

In August, 1606, the London Company sent out a vessel in command of Henry Challons, but he was seized by the Spaniards. At the end of the same year the same company fitted out three ships and provided them with means for a plantation. The expedition was intrusted to Captain Christopher Newport and sailed from England on the 19th of December, 1606. As usual the course was by way of the West Indies. Southern entrances were at that time regarded as bad harbors,

* Now called Neutral Island. See Williamson's History of Maine.

but Chesapeake Bay from the time of the earliest Spanish navigators was in esteem for safety, and is so represented on the map of the neighborhood of Roanoke drawn in the year 1590. On the 26th of April, Newport entered the bay and named the south side of the entrance "Cape Henry," in honor of the English prince of that name. The bay was sounded and some of the river mouths. Near one of the anchorages the land was named "Point Comfort," but what is now "Newport News" was by him designated "Archer's Hope." Passing 8 leagues further up the river a little settlement was made and was named "Jamestown" in honor of the King. The building of the fort there was commenced on the 14th of May, 1607. Ten days afterward a cross was erected and the name "King's River" was applied. Captain Smith calls it "Powhatan River," after the noted chieftain, but it is probably the same river which was previously known to Spaniards, and which they had marked as "Rio del Espiritu Santo." In the middle of June the fort at Jamestown was complete. Captain Newport left at the settlement 104 persons and then returned to England.

In the early experience of the colonists dissensions were frequent, but all matters there eventually came under the control of a man of more than ordinary ability, and moreover of adventurous spirit.

CAPTAIN JOHN SMITH, 1608.

Smith had served as an officer in the Austrian army, against the Turks, and had traveled much abroad. When the two companies were formed for colonization in Virginia, Smith became interested and accompanied Newport. By the King he was named as one of the councillors of the new colony. When the settlement at Jamestown was deemed secured, Smith led in succession exploring parties toward the interior, and finally, in the spring of the year 1608, made an exploration of the shores of the Chesapeake Bay. At this time nothing was known respecting either its extent or its direction. With an open barge Smith set out from Jamestown on the 2d of June, 1608, with 14 persons. He was accompanied by Walter Russell, a physician.

Smith, from the mouth of James River, crossed the bay and began the examination at Cape Charles. The first island on which they landed was named "Smith's Isle," and from thence he passed along the eastern shore of the bay, towards the north. The next group of islands was named "Russell's Islands." These are in Tangier Sound. Sailing further he named a group "Limbo Isles," and a point south of these was marked "Point Ployer." Crossing to the western shore the party examined the Patuxent and the Patapsco, but his men were then tired of hardships in an open barge. Smith was constrained to return without having seen the head of the bay or settling the question whether it did or did not lead towards China. On the 16th of June they entered the Potomac and went up as far as the draught of the boat would allow, probably as high up the stream as the site of Washington or Georgetown. He then returned, entered the Rappahannock, and explored its course. Near by he was wounded in the hand by a fish, and to mark the place he applied the name "Stingray Island," which holds in the vicinity at this day.

On the 21st of July Smith was again at Jamestown, but on the 24th set out again along the western shore of the bay and soon reached the head. He entered the Susquehanna, which he named after the Susquehannocks, an Indian tribe settled on its shores, and he must have passed well into what is now the State of Pennsylvania, as he marks part of the river as "Smith's Falls." Another branch of the bay he named Tockwough, and it is, probably, Sassafras River.

The Indians along the Chesapeake mentioned to Smith that another great water existed beyond the hills, and he judged it to be a lake or river of Canada; but it seems more likely that the Indians referred to Delaware Bay and River.

After exploring the principal branches of the Chesapeake, Smith again reached Jamestown on the 7th of September, 1608. He states that the aggregate of water courses examined was about 3,000 miles. His map of the region is creditable in point of accuracy, and was copied many times in the century following his time. He was elected president of the colony and held office until the autumn of the year 1609. By an accidental explosion of gunpowder he was wounded and felt himself constrained to return to England. After his departure no action wss taken in furtherance of his wishes in regard to exploration. He had been previously on the coast of New England, and hence his name will be again mentioned in this paper.

CAPTAINS POPHAM AND RALEIGH GILBERT, 1607.

The Plymouth Company made an attempt to settle a colony in the year 1606, as had been done by the London Company. In the interest of the first-named company Captain Thomas Hanham went to New England and explored the havens and harbors, but no details can be found respecting his movements. But, in the following year, the same company fitted out two ships and sent in them a hundred men under command of Capts. George Popham and Raleigh Gilbert. They sailed from Plymouth on the 31st of May, 1607, and passing westward made land at Monhegan Island on the coast of Maine. Near by, they entered a navigable river named Sagadahoek and there formed a settlement; but finding the place inconvenient they moved to Small Point, a few miles west of the mouth of Kennebec River. When preparations were complete for winter the vessels sailed on the 5th of December for England.

The winter proved to be unusually severe and the settlers suffered in consequence of the cold. Moreover, the Indians were hostile. George Popham and some others died. In the spring of 1608 other vessels arrived with supplies, but the colonists were already discouraged and concluded to return to England. The death of a brother in England necessitated the departure of Gilbert.

In England the returning North Virginian settlers gave unfavorable reports respecting the region and represented that it was uninhabitable for Englishmen.

CAPTAIN SAMUEL ARGALL, 1613.

Mention has already been made of the coast voyage by De Monts in the year 1605, and of the unfortunate attempt by the Sieur du Pont in 1606. The French still regarded themselves as owners of the coast, though of late years the English had visited the region oftener. In the year 1608 the Fathers Biard and Masse went to Nova Scotia, but soon disagreed with the French governor, and sought another place for settlement. On Mount Desert Island they constructed and fortified a habitation, planted, and passed some years. Five years later they were joined by thirty of their countrymen, who founded a settlement of the name of Saint Sauveur, which was sometimes called Mount Mausell. But, by the English this French lodgment was considered an intrusion on their Virginian possessions. Captain Argall was therefore sent to displace the intruders. He had accompanied other commanders, and hence had large experience in coasting. In the year 1613 he went in charge of a vessel, and was engaged in taking fish when a storm forced him to enter Penobscot Bay. At Mount Desert he found the French settlement of Jesuit missionaries and plundered it, and also seized the only French ship then in the harbor. Fifteen Frenchmen were made prisoners and taken to Virginia, and there the fact that any foreign settlement had been made caused much anxiety. The Governor immediately placed three armed vessels under command of Argall, and he went north to operate against the French, as far as Acadia. At Mount Desert he destroyed all vestiges that remained after his hostile visit, and set up on the island the arms of Great Britain. Passing on to Saint Croix River and the Bay of Fundy, all traces of French habitations there and also at Port Royal were scattered. He then returned to Virginia. In English publications and maps what had been and is now marked as the Bay of Fundy was for a long period marked as *The Bay of Argall.*

CAPTAIN JOHN SMITH, 1614.

Captain Smith left the Chesapeake region in the year 1609, went to England, and was there active in promoting further settlements on the coast of America. He was regarded as a great authority in such matters by leading men of the day. In the year 1612 he published his map of Chesapeake Bay, accompanied by a description of the country, and thus favored the views and interests of the London Company. Doubtless the Plymouth Company desired similar advantages, as they soon engaged Smith to go out with two ships, in company with Captain Hunt. The vessels sailed promptly and made land at Monhegan Island on the coast of Maine. There the crew was busy taking in a cargo of fish, while Smith with a few hands went in boats along the coast as far south as Cape Cod. Three months were passed in making his survey. He entered nearly every bay and harbor, procured the names of Indian tribes, villages, and localities; observed for longitude and latitude, and after his return to England (August, 1614) compiled a

map and description. This was issued in the year 1820. In the interval, however, Smith made (in 1615) another attempt to reach America. He sailed from England in March, but was captured by French men-of-war and detained as a prisoner at Rochelle. When liberated, Smith returned to England and there passed the remainder of his life in publishing his works. His first narrative and map of New England was issued in the year 1616; and in token of their regard the members of the Plymouth Colony conferred on him the honorary title of "*Admiral of New England.*" He says that he applied the name (*New England*) in opposition to the French, as their "New France" adjoined, and as, moreover, they included Northern Virginia. On the western side of the continent, under the same degree of latitude, Sir Francis Drake had landed and named a country *New Albion.* Smith applied many new names, but in the course of time they were disused. He says that when constructing his map several others, less accurate, were in his hands. The latitudes assigned by Smith are good; and the longitudes are better approximations than were recorded by either of his predecessors.

Captain Thomas Dermer sailed from England in the autumn of the year 1618 and went westward to Monhegan Island. His vessel there tookin fish and furs, and returned to England. Dermer remained on the coast of New England, and in a small bark passed southward to some part of Virginia in search of a mine reported to be there. He passed into Chesapeake Bay, and, as he says, "Discovered many goodly rivers and exceedingly pleasant and fruitful coasts and islands for the space of eighty leagues from west to east, between Hudson River and Cape James, *i. e.*, Cape Cod." Neither maps nor journals were left by Dermer. He left only a short letter giving a summary of his voyage from the coast of Maine south to Chesapeake Bay. He went southward on the 19th of May, 1619, touched at Plymouth Harbor, passed around Cape Cod, and staid some time at Martha's Vineyard. In Long Island Sound he found a "dangerous cataract amongst small rocky islands, occasioned by two unequal tides." This mention marks the condition of Hell Gate at that time. He passed through New York Bay and went south to Cape Charles, where he anchored and made a map. After his return to the north he wrote a narrative of the voyage, but nothing is now known respecting the details of either the map or the journal.

Christopher Levett was sent out from England by authorities claiming the province of Maine in the year 1623. He landed at the Isles of Shoals, and from thence coasted in boats to the eastward as far as the Kennebec; but on being told by the Indians that no place in that direction was favorable for settlements, he returned to his vessel.

HENRY HUDSON, 1609.

At the end of the year 1608 the Dutch East India Company engaged the English navigator Henry Hudson, who had gained reputation by his energy at sea. They gave him a small vessel, The Half Moon, and commissioned him to explore the waters north of Europe and Asia, to find, if possible, a short northern passage to the East Indies. He had been twice employed in such service by certain merchants of London.

Hudson sailed from Amsterdam on the 25th of March, 1609, with a crew of Dutch and English sailors, and passed by the north coast of Europe towards Asia. But he was beset by fogs, storms, and icebergs, and was unable to reach the well-known island of Nova Zembla. It was deemed best to turn westward, and at the Banks of Newfoundland be turned towards the south, and traversed the New England coast. At Penobscot Bay he went ashore, and also at Cape Cod. Keeping on southward he passed the entrance of Chesapeake Bay, and from the latitude of 35° 41′ N. he turned back. The dry journal of Juet says nothing in regard to Hudson's intentions. Cleveland, in his Life of Hudson, expresses the opinion that Capt. John Smith, a personal acquaintance, had informed Hudson of his own belief in the existence of a western passage to the south of Virginia. Not finding any such passage he turned northward, and coasted along the series of sandy islands outside of the peninsula of Delaware. He remarks "the coast is a white sandy shore, and sheweth full of bays and points, and all within the land to the northward the water ranne with many islands in it."

Passing along to Cape Henlopen, he entered, on the 28th of August, Delaware Bay.* He

*See "Historical inquiry concerning Henry Hudson, By John Meredith Read, jr." Published at Albany, N. Y., in the year 1866.

sounded, wrote a description, and embodied sailing directions, thus recording the first mention of any consequence after the examination by Oviedo in the year 1545. If maps were drawn by Hudson, they were not preserved. He sounded along the coast of New Jersey, and in his journal mentions the islands and inlets. On the 2d of September he had in sight the hills of Navesink, and says "they are a very good land-mark to fall with and a pleasant land to see." He describes Sandy Hook, but named it *Colman's Point*, because one of his men (John Colman) was wounded there by an Indian arrow, and died. On the 11th of September Hudson passed the Narrows and entered New York Bay. Finding that the water soon freshened, the passage was regarded as a river, and he passed up to the site now occupied by the city of Albany. Laet says that Hudson named the river "*Manhattes*" after an Indian tribe that lived near the entrance.

On the 4th of October Hudson sailed for England. The Dutch East India Company, seeing the probable importance of his discovery, sent out vessels to that region, but the only narrative of these several expeditions now known is that of De Vries, in the year 1632. After the time of Hudson, the region was explored by Adrian Block and Hendrick Christiansen, but the routes they followed, and even the year of their voyage, are uncertain. It was probably between the years 1610 and 1612. Both of these commanders were on the shores of New Belgium for the second time in the year 1614, with five ships. Block then explored the East River and passed through Long Island Sound. He sailed up the Connecticut River to the site now occupied by the city of Hartford.

The East India Company annually, until the year 1618, sent out some ships, but at the date mentioned the privileges of the company expired. Private voyages were made to the region of the Hudson until the year 1621, when the West India Company was chartered, and two years later expeditions went out and soon gave names which appear on the early Dutch maps of that quarter.

Cornelius Jacobs May, in the year 1614, was with Block and Christiansen in the New Netherlands. He was again sent out in the year 1623 by the West India Company, and took the lead of marine affairs for the States General, and also for New Netherlands, on the Hudson River. Under the direction of the company, May led the first Dutch colony to settle along the Hudson. He explored eastward as far as Cape Cod, and from thence passed southward and entered Delaware Bay, which he called the "South River in the Southwest." His countrymen named lower New York Bay "the Port May;" Delaware Bay they marked as "New Port May," and its entrance capes, "Cape May" and "Cape Cornelius." Hudson, in the year 1609, had entered, but turned without passing into the bay. May stopped in the Delaware at the site of Philadelphia, and near it established the first Dutch settlement, and for its defense built Fort Nassau.

DAVID PIETERSZ DE VRIES, 1632.

De Vries led an expedition to Newfoundland and another to the East Indies. At his return to Amsterdam in the year 1631, he formed with Samuel Godyn and other Dutch merchants a company for exploring and settling on the Delaware River (then known as South River) and for whale fishing in that vicinity.

The company sent out a vessel under Captain Peter Heyes to South River, and at the mouth a small fort was built. But the enterprise was not successful. Only one whale was taken, and the garrison of thirty men was unable to resist an Indian attack, and all the defenders were killed.

In the following year De Vries arrived in person with two vessels. He sailed from the Texel on the 24th of May, 1632, and reached the entrance of the Delaware on the 3d of December. The vessels anchored near a place which he calls Swanendael, and there a settlement was commenced. With one of the vessels the river was examined and names were given to several localities, as, "Reed Island," "Wyngaert's Hill," "Vogelsant," "Swanendael," "Timmeokill," and others, but these names soon disappeared as later maps were drawn.

After taking a few whales De Vries made a visit to the English settlement in Virginia, and on his course explored the low shore of the Delaware peninsula. He returned from Virginia and was again at South Bay on the 29th of March. The crew of the vessel left there had, in his absence

taken nine whales. That vessel was sent laden to Hudson River, and with the smaller one he closely examined the coast, but no map is attached to his account of the coast features. From Hudson River De Vries returned to Amsterdam, and arrived there on the 24th of July. Between the years 1636 and 1642 he made a third voyage to New Netherlands, but the particulars bear only on the early history of the State of New York. Nothing was thereby added to our knowledge of coast hydrography.

The development of the eastern coast of the United States in regard to essential features became known in a short period by the expeditions of French and English to the shores of New England; by voyages of the Dutch to Hudson River and vicinity; and by the English to Chesapeake Bay and vicinity early in the seventeenth century. Laet, the Dutch cosmographer, was able, in the year 1624, to publish a map showing the outlines and coast details with considerable accuracy.

Titles of copies of maps of the Atlantic coast of North America or parts thereof.

[Published between the years 1500 and 1770, and collected by J. G. Kohl, Ph. D.]

No.	Description of map.	Year
	A series of maps (Nos. 1 to 16, inclusive) under the general title of the "East coast," as follows:	
1	By Juan de la Cosa	1500
2	From a map in the edition of Ptolemaeus	1508
3	By Diego Ribero	1529
4	From a map in Ptolemaeus	1530
5	From an Italian map	1534
6	From a map of the world by Baptista Agnese	1534
7	From a map of the world by Diego Homem	154?
8	From an English map of J. Rotz	1542
9	From the Ptolemaeus of Ruscelli	1544
10	From a French map by N. Vallard	1547
11	From a French map (author unknown)	1550
12	From a map of America by A. Joan Bellero	1554
13	From a manuscript map of Oxford	155?
14	A map by the Portuguese geographer D. Homem	1558
15	A map by Diego Gutierrez, a Spanish cosmographer	1562
16	From an old manuscript atlas in the British Museum	156?
17	Le Moyne's map of Florida	1565
18	Italian map of the east coast by Zattiery	1566
19	The east coast from a map of Joannes Martines	1578
20	Map of the east coast by Fernando Simon	1580
21*a*	The east coast after Michael Lok	1582
21*b*	Map of Virginia, by De Bry	1590
22	The east coast from Molineux's Globe	1592
23	General map of the east coast by Wytfliet	1597
24	(This number does not occur either on the maps or in the explanatory notes)	
25	Virginia (more particularly Chesapeake Bay) by Capt. John Smith	1608
26	New England, by L'Escarbot	1609
27	New England, by Capt. John Smith	1614
28	New Netherlands. From a Dutch map, the original in the archives of the Hague	1616
29	French Florida, by L'Escarbot	1618
30	A map of the greater part of the east coast by Capt. John Smith	1624
31	"Ould Virginia," by R. Vaughan after Captain Smith	1624
32	A general chart of (part of) the east coast of North America, by J. de Laët	1624
33	New England, by Joannes de Laët	1630
34	Coast of Florida, by de Laët	1624
35	New Belgium or New Netherlands, by Lucini	1631

Titles of copies of maps of the Atlantic coast of North America or parts thereof—Continued.

No.	Description of map.	Year.
36	The south part of New England, by William Wood	1634
37	The first map of Maryland	1635
38	The New Netherlands, by Andriaen van der Donk	1656
39	New Jersey, by John Seller and William Fisher	1676
40	Carolina, by W. Hack	1684
41	A chart of the Gulf Stream, by Dr. B. Franklin	1769 to 1770
	[NOTE.—Dr. Kohl has observed that the first map on which any notice at all is taken of the Gulf Stream is the one copied by him from a manuscript of John Dee in the British Museum and bearing date of 1580. See No. 15 of the collection of maps relating to the Gulf of Mexico. The first delineation of the course of the Gulf Stream on a chart of the Atlantic is the one which Franklin had engraved from data furnished by Captain Folger, of Nantucket, and which he had published by Mount and Page, Tower Hill, London. Dr. Kohl's copy of this map bears no date, but that given above (1769–'70) is taken from Franklin's own account of its origin.]	
42	Boston harbor, by Henry Popple	1733
43	New York and Perth Amboy Harbors, by Henry Popple	1733
44	The town and harbor of Charlestown in South Carolina, by the same	1733
45	The harbor of Saint Augustine, by the same	1733
	[NOTE.—The copies of maps above named are deposited in the archives of the Coast and Geodetic Survey. There is also on file in the archives a map of the discovery of the East Coast of the United States, compiled by Dr. Kohl to illustrate his historical account, and showing by colors the range and limits appertaining to each discoverer and explorer.	

ABSTRACT OF CONTENTS.

History of the discovery and exploration of the Gulf of Mexico.

Columbus (1492–1502).—Sails westward from the Isle of Pines, discovered by him in 1494. On his fourth voyage, 1502, is again in the western part of the Gulf.

Sebastian Cabot (1497).—Touches on the continent and passes southward along the coast.

Solis and Pinzon (1506).—Reach the coast of Honduras and sail northward; how far is uncertain.

Sebastian de Ocampo (1508).—Examinations on the coast of Cuba.

Juan Ponce de Leon (1512).—Examinations on the eastern and western coasts of Florida, and in the approaches to the Gulf of Mexico.

Diego Velasquez (1511–'14).—Leads an expedition for the conquest and settlement of Cuba.

Diego Miruelo (1516).—Voyages from Cuba to Florida.

Cordova (1517).—Expedition from Havana, Cuba, to the coasts of Yucatan.

Grijalva and Alaminos (1518).—Expedition fitted out at Matanzas, Cuba, for the exploration of the coast of Yucatan and of Mexico.

Fernando Cortes (1519).—Commands the expedition fitted out at Havana and intended to make a thorough examination of the coasts of Yucatan and Mexico. Founds a colony at Vera Cruz, and enters upon the conquest of Mexico.

Alvarez (1519).—Expedition fitted out under the direction of the governor of Jamaica. Examines the west coast of the peninsula of Florida, and sails thence to Vera Cruz.

Narvaez (1520).—Commands an expedition fitted out by Velasquez to proceed to Vera Cruz, and obtain the submission of Cortes to the authority of Velasquez.

Pineda and Camargo (1520).—Under the auspices of the governor of Jamaica an expedition is fitted out for a settlement at Panuco on the Mexican coast.

Ponce de Leon (second expedition 1521).—Expedition from Porto Rico to the Gulf coast of Florida.

Francisco de Garai (1523).—Receives from the King of Spain a grant of the government of a province on the western coast of the Gulf of Mexico.

Narvaez (1527–'36).—Expedition starting from San Lucas in Spain for the purpose of exploration and settlement on the northern shores of the Gulf of Mexico.

De Soto (1539).—Expeditions to the Gulf of Mexico. Exploration and settlement between Tampa Bay and Apalachee Bay.

Diego Maldonado (1540).—Makes report to De Soto of his discovery of and entrance into Pensacola Bay.

De Soto (1541).—Discovers a great river which the Spaniards named Rio Grande, but named subsequently the Mississippi.

Luis de Moscoso, Maldonado, and Arias (1542–'43).—Continuation of the explorations set on foot by De Soto. Expeditions to the country south and west of the Mississippi, and descent of that river to the Delta.

Andres de Ocampo (1543).—Explorations and travels in the regions between Mexico and Florida.

Andres de Olmos and Guido de las Bazares (1558).—Expedition from Vera Cruz for the examination of the whole of the north shore of the Gulf, to find a harbor suitable for the fleet of Don Tristan de Luna.

Don Pedro Menendez (1563–'67).—Commands an extensive expedition to the Florida coasts; is made Captain-General of Florida, breaks up the French settlements on the peninsula, makes examinations and surveys on both the Atlantic and Gulf coasts.

French and English adventurers (1555–'67).—Voyages and explorations by Robert Tompson, Sir John Hawkins, Captain William Michelson, and others.

Pedro Menendez Marquez (1573).—Commissioned to make a survey of the coasts of Florida.

Ruiz, Lopez, Antonio Espejo and others (1551–'83).—Explorations in New Mexico, Texas, and adjacent regions. Name given to the province of New Mexico; settlement of Santa Fé.

Robert de la Salle (1682–'85).—Plans an expedition to complete the work of exploration of the Mississippi River. Descends the river to the Delta, and sounds out and explores the Passes.

Juan Enriquez Barrato (1685).—Commands an expedition to the north coast of the Gulf, and examines the bays and capes from Pensacola Harbor to the westward.

Andres de Pes (1693).—Enters Pensacola Bay, examines its shores and indentations, and gives names to its prominent capes, &c. Proceeds thence to Mobile Bay and to Lake Borgne.

Iberville (1698–'99).—Lands with an expedition under his command at Dauphin Island; takes soundings in the vicinity, names Biloxi Bay and Pascagoula River, also Lakes Manrepas and Pontchartrain.

De Tonti (1700–'04).—Having accompanied La Salle in his several expeditions, and having passed four times up and down the Mississippi, dies at Mobile Bay.

St. Denis (1714–'19).—Under the direction of M. Crozat, manager of the French colony in Louisiana, traverses Texas and Mexico; returns to Mobile, and prepares maps of the Mexican Gulf countries.

Lemoyne de Bienville (1717–'20).—Sends out expeditions under his direction as governor of Louisiana to establish settlements and military posts on the north coast of the Gulf. Founds a colony in 1718 on the present site of new Orleans. Arrival of Father Laval, a French astronomer of distinction, who determines latitude at a station on Dauphin Island.

Bernard de la Harpe (1721).—Commands an expedition for establishing French settlements on the coast of Texas.

Father Charlevoix (1722).—As an explorer, and as the historian of early times in the northern region of the Gulf of Mexico, occupies a conspicuous place.

French and Spanish commanders on the Gulf coast and on the peninsula of Florida (1718 *and later*).—Contests for the possession of Saint Joseph's Bay, Pensacola Harbor, and other points on the Gulf coast between French and Spanish commanders.

U. S. Coast Survey (1846).—Geodetic operations on the coast of the Gulf of Mexico begun by the United States Coast Survey.

COLUMBUS, 1492–1502.

On his first arrival in the western hemisphere Columbus regarded as islands all the land then seen. No chart of that time is extant, except what may be considered as such in the armorial bearings ordered by the King of Spain at the end of May, 1493. Spotorno gives a fac-simile of the map, and Oviedo makes mention of it. He says: "On this chart are seen islands lying *in a gulf* which is formed by *tierra firme* of the Indies, and upon the *tierra firme* of the chart are represented palm trees, other evergreens, and gold clumps."

On his second expedition Columbus sailed along the south shore of Cuba, and early in June, 1494, was at the Isle of Pines, and beyond it he sailed some distance. Strangely, he regarded the region as being part of the East Indies, and turned without discovering Mexico. On his fourth voyage (in July, 1502), Columbus was again in the western part of the Gulf, but did not reach Yucatan. He never touched on the mainland of the continent of America.

SEBASTIAN CABOT, 1497.

The continent was touched on by Cabot on the 24th of June, 1497. This was previous to the third voyage of Columbus. From his western landfall he passed along the coast southward, but the limit reached in that direction is somewhat uncertain. The only early chart marked with the discoveries of Cabot is that of Juan de Cosa, of the year 1500, referred to by Humboldt and Walkenaer. On it Cuba is represented as an island, and the continental shore line runs to the north and to the west of Cuba.

JUAN DIAZ DE SOLIS AND VINCENTE YAÑEZ PINZON, 1506.

In 1494 Columbus had intimated that no passage was practicable around the coast of Cuba, and his declaration seems to have checked somewhat the progress of discovery in that region. The effect was to divert attention to the southward and westward, and thus the outline of the Caribbean Sea became known while the north and west shore of the Gulf of Mexico was yet unexplored.

Solis and Pinzon sailed from Hispaniola and reached the coast of Honduras. Fernando Columbus says they had a pilot, Pedro de Ledesma, who had been in the same region with Christopher Columbus. They sailed along the cost of Honduras and steered northward, but the limit of their navigation cannot be marked with certainty. In the biography of his father, Fernando Columbus says that Solis and Pinzon made a chart of the newly discovered regions, but no copy of such chart is known to us.

SEBASTIAN DE OCAMPO, 1508.

Herrera says (in 1507) that King Ferdinand of Spain regarded his officers as delinquent, because so many years had elapsed without settling the question as to the insular character of Cuba. He therefore sent an order to his Governor-General of the West Indies, Don Nicolas de Ovando, to fit out an expedition. Two vessels were sent under Captain Sebastian de Ocampo, who had been with Columbus in voyages to Hispaniola. The navigation was difficult, and the vessels needing repairs, a port was entered on the northwestern coast of Cuba, and there some time was passed in refitting. The place he designated as Puerto de Carenas [harbor of careening], but it is not doubtful that the port was Havana. Ocampo sailed along the south coast of Cuba, going eastward. Near the Isle of Pines he crossed the track followed by Columbus in 1494, and returned to Hispaniola after being eight months at sea. There is no complete journal nor record of nautical and astronomical observations made by Ocampo, but he was certainly the first man who discovered the prospective importance of the harbor of Havana.

In the year 1512 Diego Velasquez marched in the interior of Cuba, and Ponce de Leon, sailing from Porto Rico, traversed part of the shores of that great island. In the year following, a map was printed in Europe, showing to the northwest of Cuba a gulf and a peninsula, and it was probably an attempt to represent Florida and the Gulf of Mexico. The map is given in the Strasburg edition of Ptolemaeus, of the year 1513. On it is depicted to the northwest of Cuba a continent marked with the name Parias, which designation was somewhat common on early maps of the American continent. The author of the map here especially referred to was John Schott. At that time such publications were suppressed in Spain. The map has no reference to Ponce de Leon, nor is it marked with the name Florida, nor with any other, pertaining to his adventures. He regarded Florida as an island, and it is so represented on the map.

On a chart of the year 1508 Cuba is marked as an unfinished discovery, showing only part of the northern and part of the southern shore, and it bears the inscription, "So far came the ships of King Ferdinand of Spain." Evidently the parts shown were such as had been seen by Columbus. Ruisch, the compiler of the map, knew nothing of the map of Cosa, which was made in the year 1500.

Near the end of the year 1510, or possibly some months later, a vessel went from Hispaniola for the capture of Indians. Thirty men were on board. By a storm the vessel was forced into the Gulf of Florida, and was wrecked. All the crew were killed by the natives, excepting two women and one man, who were given as slaves to a cacique of the Indian district near Havana. There the captives lived until liberated at the time of the conquest of the island of Cuba, by Diego Velasquez. The port in which the misfortune happened, was afterwards called Puerto de Matanzas [port of slaughter], and it still bears the name.

Velasquez landed in 1511 and reached the middle parts of the island in about two years. He learned that Spaniards were held by the Indians, and hastened to liberate them. The survivor assured Velasquez that he had been held nearly four years.

In the year 1511 a vessel was despatched from the Isthmus of Darien, commanded by Captain Valdivia, to bring a sum of gold, and to report the state of affairs to the Governor-General. Unfortunately this vessel was wrecked on some rocks on the south side of Jamaica. Valdivia and

some of the crew in a boat attempted to reach the coast of Cuba, but were swept westward by the currents, and landed in Yucatan. There they were held by the Indians; some were killed and others were kept as slaves. The only survivors were Geronimo de Aguilar and Gonzalo Guerro. These were alive when Cortes arrived in Yucatan, in 1519, and the first-named, having acquired the language and much knowledge of the country, became useful to the daring adventurer.

JUAN PONCE DE LEON. 1512.

The Indians found on Cuba had a tradition of a country to the northward named "*Cautio*," where was a river of which the waters would restore youth. As Ocampo passed eight months of the year 1508 in that vicinity it seems probable that his report was known to Ponce de Leon, who, for some time, was governor of the island of Porto Rico. But a similar story was told of a fountain on an island called "*Bimini*," to the northwest of Hispaniola. Three years later the governor was superseded, but he had become wealthy, and fitted out at his own cost three vessels, and with them sailed on the 3d of March of the year 1512 from Aguada, at the mouth of the river Guanabo. In the middle of the month he was at Guanahani, where Columbus had landed. He crossed the track of Columbus and advanced to the northwest. On the 27th of March, which was a festival day, called by the Spaniards "el Dia de Pascua Florida de Resurreccion," he saw the coast of a new country, which he regarded as an island, and this he named "*La Florida*" He coasted some distance, but finding no harbor turned back, as the current was strong. With some difficulty he rounded Cape Cañaveral, and going southward reached the Florida reefs and keys. On the western coast of the peninsula, at a place which cannot readily be identified, the vessels remained until the 3d of June. Next day they were attacked by a great fleet of canoes. Many Indians and a few of the Spaniards were killed, hence the place was named Isla de Matanza; *i. e.*, the island of slaughter. For some days, however, intercourse was maintained with the natives. Passing on westward, they reached the *Tortugas* on the 21st of June, and there they caught in a single night one hundred and sixty large turtles. They killed also seals, pelicans, and other birds which there abounded. Three days afterwards they sailed, and again saw land on the 26th. At the end of the month they entered a harbor to repair the vessels, but could learn nothing of the country to which it pertained. By most of the party it was believed to be part of Cuba, as some iron tools were seen, and trees that had been cut by knives. Moreover the trend of the coast was east and west. On Friday, the 1st of July, they left the harbor and brought up at some islands of the Lucayan group. There they sought for the island of Bimini, and met with a Spanish vessel commanded by Diego Miruelo, who was sailing on his own account. Much was expected from his experience as a pilot in that dangerous quarter, but the vessel in which he had joined the fleet of Ponce was soon wrecked in a storm, but without loss of life. The family to which Miruelo belonged afterwards became famous as Gulf pilots.

Ponce decided to sail homeward, but before starting despatched a vessel to renew the search for Bimini. This was commanded by Juan Perez de Ortubia and the pilot, Antonio de Alaminos. Bimini was found, but nothing was seen of the wonderful fountain. The place was, however, reported to be a cheerful, fresh-looking island, well watered, and full of trees. Herrera adds to his report on this expedition a chapter on the nature and currents of the Gulf Stream, but as the journals of Ponce de Leon were not extant, the conclusions in regard to that marine feature are doubtless such as occurrrd to Herrera a century after the time of Ponce de Leon. He probably drew a chart showing the contour of the Florida peninsula, and it seems likely that the sketch given by Diego Ribero, in the year 1529, was reduced from the charts of Ponce. In the year 1513 Ponce de Leon went to Spain to make report, but nothing can be found of any detailed statement; merely the sentence "to the northwest end of Cuba has appeared a great country, which they believe to be a continent."

VELASQUEZ, 1511–'14.

Shortly after the time of Ponce de Leon the gulf shore of Cuba was settled by Spaniards. In the year 1511 Don Diego Colon, then Governor-General of the West Indies, resolved upon the conquest of the great island, of which nothing was known to Europeans except that it was a good

land, thickly inhabited, and rich in natural productions. The governor sent out Captain Diego Velasquez with three hundred men in four vessels. That commander was soon followed by adventurers from Jamaica, Porto Rico, and other West Indian islands, and amongst them was Sebastian de Ocampo, who had passed around the island in the year 1508. Pamphila de Narvaez arrived in 1514, and marched partly on shore. He was very active, and twelve years later was killed in Florida. Both Velasquez and Narvaez had been told of the existence of some Spaniards in the neighborhood of Havana. These had been shipwrecked a few years before, and with a view to their liberation Father Las Casas hastened to that region.

When Velasquez had traversed and taken possession of the gulf shore of the Island of Cuba, he founded, in 1514, near Ocampo's landing place, the town of Havana, and in the same year sent his captain, Narvaez, to the west end of the island, now known as Cape San Antonio. At intervening places Spanish settlers built houses and improved the land, and this was the first firm foothold which the Spaniards gained on the shores of the gulf. The settlement on the north coast of Cuba was the foundation of future conquests and explorations.

DIEGO MIRUELO, 1516.

It is probable that the Spaniards, settled by Velasquez near Havana, built vessels as well as houses, and it seems likely that they made visits into the Gulf of Florida, and perhaps to the Florida Keys. There was certainly a trading expedition from Havana in the year 1517, conducted by Pedro d'Avila, and records show that mariners and coasting and fishing vessels were known in the port of Cuba in the year 1518. Barcia states that Diego Miruelo went from Cuba to Florida in the year 1516, and there traded with the Indians.

CORDOVA.

Francisco Hernandez de Cordova was a wealthy settler of Cuba, who held Indians and also an estate near the town of Espiritu Santo, near the middle of Cuba. He was elected as commander-in-chief by upwards of a hundred enterprising young Spaniards, who desired to make discoveries. All of them had come to Cuba from Darien, where the Governor, Pedro Arias de Avila, had not found sufficient occupation for them. But in Cuba they were too late. Velasquez had already completed the conquest and partition of the island. Cordova, however, accepted the offer of these men who wished to gain wealth or reputation. He fitted out two vessels, and the third was given by the Governor under the condition that they should bring to him a number of Indian slaves from the islands of the Guanajos. The offer was declined by Cordova, who explained that they were concerned only in exploration and discovery. Velasquez then gave them the ship on their own conditions. Their chief pilot was Antonio de Alaminos, and the vessel sailed on the 8th of February, in the year 1517, from Havana. Going westward the party doubled Cape San Antonio after coasting twelve days, and then stretched into the sea westward, without knowledge of rocks, shoals, currents, or winds that might be encountered. It is not mentioned that they had on board a copy of the chart of Columbus made in 1502, nor of Solis and Pinzon's chart of 1506. The only inducement to take a western direction seems to have turned on the recollections of their chief pilot, Alaminos, who remembered that Columbus, with whom he had sailed as a boy, had always a strong inclination to go westward. After a heavy storm, which lasted two days and nights, the course was changed, and twenty-one days after their departure from Cuba they came in sight of land. From the ship, they saw a large Indian town, and when they came to anchor, on the 4th of March, many canoes came out to them, and some were of size sufficient to contain fifty Indians. These, in their intercourse with the Spaniards, frequently repeated the words "Con escotoch"! and hence on the chart the place was marked "Punta de Cotoche." The Indian words were probably intended to express an invitation to come ashore.

After a short land excursion to the interior, the Spaniards had a bloody encounter with the Indians, but at the same time found to their great joy good buildings and temples, and in them idols and ornaments of gold. Thus stimulated, they held along the shore to the west, and discovered points, bays, and many of the shoals and reefs of that part of Yucatan. The pilot, Alaminos, however, believed that the newly-found country was an island, a suggestion as will be

remembered, made by Ponce de Leon in regard to the peninsula of Florida. On the 25th of March they reached a bay, which the Indians called "Quimpech," but in the Spanish pronunciation it is known to this day as Campeche. The natives hailed the adventurers repeatedly with the word "Castilan," at the same time pointing toward the east. While taking in water from shore the Spaniards saw temples ornamented like those at Catoche, but these could not be examined, as the natives collected in great numbers and marched in battle array. The Spaniards retreated, but brought off their water casks, and after stowing them sailed away to the southwest without interruption, favored during six days by wind and weather. On the seventh day a heavy north wind caused the casks to leak, and made it needful to seek another anchorage. They consequently went into the mouth of a river near an Indian village, the name of which was Pononchau. Here they found water wells, buildings of stone, maize plantations, and other signs of a good state of cultivation; but trusting too far inland they were attacked by natives in overwhelming numbers, and like those of Campeche, the Indians uttered the cry, "Castilan," "Castilan." In cutting their way through the mass of savages the Spaniards lost fifty-seven men in killed and two others were carried away as prisoners. The boats were capsized, the water casks lost, and all who reached the ships were marked by wounds. The commander, Cordova, was wounded in twelve places. This sad event ended further progress, and the place was named by the pilot and mariners of the expedition "Bahia de la mala pelea," *i. e.*, Bay of the disastrous fight. It was probably the mouth of the river now known as the Champoton.

The lessened force being insufficient to work three ships, one of the vessels was burnt, and the party resolved to return to Cuba. They suffered for want of fresh water, and consulted the charts. Alaminos judged it best to leave the direct course and by turning northward to make the coast of Florida, and then fall back to find the harbor of Havana. Only this general fact is known. That commander had, when with Ponce de Leon, crossed the Gulf of Florida twice, and he had sailed also with Ortubia amongst the Yucatan Islands. It is probable that, with Ocampo, he passed entirely around the coast of Cuba. Hence his opportunity was ample for making observations on the usual eastern direction of the winds which blow into and along the eastern gate of the Mexican Gulf. The vessels had a short time before suffered by a heavy northeast gale. The expedition was probably saved from further disaster by adopting the proposal of Alaminos. Going north and northeast the party came in sight of the coast of Florida. He landed with some men, and recognized the region which he had seen in 1512. By digging wells good water was found, but they were attacked by Indians while so employed. In passing to Havana (by the Florida Keys) they had only 4 fathoms of water, and the largest vessel struck against rocks, but the exhausted crews at last reached Havana. The wounded captain, Cordova, retired to his plantation near Santo Spiritu, and there died. Some of his officers and men presented themselves to the Governor (Velasquez) and reported favorably of the new country. Some of the products were shown, and two of the inhabitants who had been taken as prisoners.

GRIJALVA AND ALAMINOS. 1518.

Reports in regard to Yucatan led to the fitting out of four ships, which were provided with a force of two hundred and twenty men. Juan de Grijalva, a cousin of the Governor, and a man of energy and prudence, was at the head of the fleet as Captain-General. Pedro de Alvarado, Francisco de Montejo, and Alonzo de Avila, all of whom afterwards became famous as companions of Cortes, were assigned to the command of vessels; and some of the soldiers and sailors who had been with Cordova joined the expedition. Amongst others was the chief pilot, Antonio de Alaminos, and Bernal Diaz del Castilla.

The instructions given by Velasquez to the commander of this expedition are not extant, but in the instructions of the same Velasquez, addressed to Cortes in the year 1518, the Governor says that he sent out Grijalva principally for the purpose "of examining and circumnavigating the island of Yucatan and to discover further onward."

The harbor of Matanzas, on the coast of Cuba, was indicated as the general rendezvous for officers, men, and ships, and from that place the fleet sailed on the 5th of April, 1518. Following the track of Cordova's expedition, Cape San Antonio was sighted in eight days, and from thence,

after sailing ten days, they reached the coast of Yucatan. By the currents they were carried southward and first saw the island of Cozumel, to the south of Cape Catoche, on the 3d of May. To Cozumel was then given the name "Isla de Santa Cruz." They followed the track of Cordova to Champoton, and there had a fierce battle, but the savages of Yucatan were put to flight. Coasting farther they soon saw an opening which was considered to be the mouth of a large river, but, on entering, it was found to be a large lagoon. As late as the year 1550 charts were drawn on the authority of Alaminos that show Yucatan as an island; and this was long after the pilots and men of Grijalva had found out their mistake.

From the lagoon last mentioned the party sailed very cautiously along the unknown coast, moving only by daylight. On the 7th of June they saw the mouth of a great river, which was entered by the two smaller vessels and by all the boats. The two larger vessels remained at anchor outside. Here the Indians assembled in thousands, but there was no hostile demonstration. Presents were interchanged. Amongst the Indians were some trinkets of gold; and the occasion was further remarkable, as then for the first time the name "Mexico" was pronounced in the hearing of Spaniards. When the natives were asked where such gold could be found they pointed towards the rising sun and pronounced the name "Mexico." The Spaniards quickly embarked for the search, but the river, which they named Rio Grijalva, was long after his time known as Rio Tabasco, as bearing the name of the cacique of the region.

An active period followed in which river mouths and other entrances were first known to Europeans. The Rio de las Banderas became famous because Spaniards there found subjects of the Indian Emperor Montezuma, and possessed themselves of a considerable quantity of golden curiosities. In exchange for a few cheap European trinkets and blue beads they gained the sum of 15,000 pesos. The next place visited was that which became the renowned port of Juan de Ulloa. This came into view on the 18th of June, and there some poor Indians had been sacrificed to the pagan deities. Hence the place was named Isla de Sacrificios. The island and its name stands on every old chart of the Mexican Gulf. At another place on the beach the Spaniards built huts and remained several days exploring the vicinity. On a neighboring island evidences appeared of the sacrifice of human beings. These were viewed by Grijalva with horror, and by an interpreter he asked what had caused these abominations. The answer was, "Olua"! "Olua"! Hence the name of the place was marked on the chart as "Ulloa." This happened on the day of St. John, and therefore addition was made to the Indian appellation; the place was known as San Juan de Ulloa. The region adjoining was named Saint Mary of the Snow. Grijalva resolved to send a message to Velasquez by Pedro de Alvarado in the ship San Sebastian; and moreover his party needed provisions. All the gold then gathered was sent, and also written reports from the several officers. After Alvarado's departure (on the 24th of June) Grijalva and his men started with the remaining vessels and passed along the coast in hope of further discoveries. With the mountains of Mexico constantly in view, they at last came to a river, "Rio de Canoas," in the province of Panuco. Many Indian canoes made out boldly and commenced battle, but with little effect, against the Spanish ships. Proceeding farther, a great cape was seen, but could not be passed, as the currents were strong. The pilot, Alaminos, advised against sailing farther to the north. It was found, moreover, that provisions were scarce, and that some of the ships leaked badly. As winter was approaching the commander decided to return to Cuba. On the 29th of September that island was sighted, and on the 9th of October they entered the port of Matanzas, from which they had sailed six months earlier. On the resulting charts an important part of the gulf was represented, and on them appear the names "Mexico," "New Spain," "Terminos," "Ulloa," and numerous other designations that are yet retained.

From Ulloa a vessel was sent by Grijalva under command of Pedro Alvarado with orders to examine the coast of Cuba. The vessel arrived in safety, but no details are known respecting the observations then made. So also of the voyage of Christoval de Olid, whom Velasquez sent from Cuba to follow the track of Cordova and Grijalva. Olid reached the shores of Yucatan, but by heavy gales was forced to return without meeting Grijalva or seeing much of the hitherto unknown coast. Olid was subsequently sent by Cortes to Yucatan and the Bay of Honduras.

On his arrival at Cuba, Grijalva found that much interest had been excited by the discoveries of Alvarado. The Governor, Velasquez, had fitted out another armament, and, although Grijalva

had been energetic, the governor was not content, as that commander had not settled and fortified a place in the new country which was supposed to be rich. The commander was not again employed, and soon after went to Jamaica, entered into the service of Garay, and accompanied him in his expedition to Panuco in 1523. Grijalva was killed in a revolt of the Indians in Nicaragua, where he had joined the standard of Pedriarias.

FERNANDO CORTES, 1519.

The voyages and operations of Cortes are described in the letter which he addressed to the King of Spain from Vera Cruz early in August, 1519. The letter is not extant, but fortunately the chaplain, Gomara, gives an extract in the fortieth chapter of his Cronica de la Nueva España; and there are other sources of information touching the adventure. Velasquez instructed Cortes to go first to Cozumel Island, and from thence to Yucatan. He was to sound and examine all the ports, inlets, and watering places, including those of Mexico, and afterwards give a complete nautical account. But the names "Mexico" and "New Spain" are not mentioned in that document.

The armament consisted of eleven vessels, which carried five hundred soldiers and officers, and the account says more than a hundred pilots and sailors. Nearly all the vessels of Grijalva and his principal officers accompanied, but the commander was excluded. As in the preceding expeditions, Antonio Alaminos went as chief pilot. Morillo, an Indian captured by Grijalva at the promontory of Catoche, and who had been baptized and taught Spanish, was the interpreter for Yucatan. Havana was the place of rendezvous. Pedro de Alvarado was sent in advance, and the other vessels sailed from Havana on the 10th of February, 1519, and had a short passage to Yucatan and the island of Cozumel. There Cortes questioned the men of Grijalva respecting the word "*Castilan*" which the Indians of Yucatan had so often pronounced, and he concluded that some Spaniards were in the vicinity. On further inquiry these proved to be men who survived the shipwreck of Hieronimo de Aguilar.

On the 5th of March the fleet doubled Cape Catoche, and soon after a vessel commanded by Escobar was sent to examine the Bay of Terminos and select a site for establishing a colony. Doubtless his report was unfavorable, as when he rejoined the fleet Cortes sailed immediately for the Tabasco River, and reached the entrance in seven days. It is thus made plain that no soundings were recorded, nor nautical examinations of any other kind. His intention was to settle and fortify. Some severe battles occurred with the Indians of Tabasco River. He accepted their peace offerings and again listened to stories of the country "Mexico." On Holy Thursday the fleet came to anchor at San Juan de Ulloa, and there some Indian messengers approached in canoes and told Cortes of the great sovereign of the interior, Montezuma. Two vessels were prepared and sent northward under command of Francisco de Montejo. These were piloted by Alaminos. The vessels followed the track of Grijalva, but went beyond his limit, which was Cape Roxo. Montejo and Alaminos doubled that cape and discovered the Rio Grande de Panuco, at the mouth of which they arrived only a few days earlier than another Spanish navigator who had reached that quarter from the north. Strong contrary currents withstood Montejo and Alaminos, and a heavy "norther" threatened them with destruction. But the north wind forced them back to Ulloa, after an absence of twelve days. The only anchorage which Alaminos deemed safe against strong north winds was some distance to the northward of Ulloa, and to that place the army was transferred and the colony was founded. Cortes named it Villa Rica de la Vera Cruz, *i. e.*, the rich town of the true cross. The latter designation implied that they had landed on Holy Friday; and the word "rica" was added because gold was obtained. The name has import similar to that of the "Golden Gate," as applied to the entrance of San Francisco Bay.

Cortes fortified the place and dispatched to the King of Spain a vessel with presents and reports of his operations. He then destroyed his fleet and marched early in August, 1519, for the conquest of Mexico.

Cortes confided his dispatches and presents to Puerto Carnero and Montejo, two of his officers, and placed them on a vessel, of which Antonio Alaminos was chief pilot. Bernal Diaz says that the best sailing vessel of the squadron was chosen. Hence it was probably the "S. Sebastian,"

which vessel is repeatedly designated as the best sailer of the squadron of Cortes. Under command of Alvarado that vessel had often sailed as a pioneer in advance of squadrons. Cortes conferred with Alaminos respecting the most direct route from the Gulf coast towards Europe, as no navigator had previously aimed at lessening the line of navigation. Only one vessel had been sent directly over, and that carried intelligence of Grijalva's success, but the passage was made through the Windward Islands.

Alaminos, who had been with Ponce de Leon in the year 1512, and with Cordova in 1517, proposed to sail between Florida and Cuba, to the east and north. Cortes adopted the plan, and his messengers, under the command of Alaminos, sailed from Vera Cruz on the 26th of July, 1519; crossed the Gulf of Mexico, and passing eastward entered the Strait of Florida; and the vessel which carried him arrived at San Lucar, in Spain, early in October. It would be needless to speculate on the route taken, and whether or not the Gulf Stream favored the passage. We know, however, with certainty that in going directly eastward he came in sight of the Azores, and no navigator is on record for the same latitude previous to the year 1519. To Alaminos is doubtless due the advantage of passing from the West Indies to Europe by keeping in the Gulf Stream. The Bermudas were soon after discovered and a plan for their settlement was fixed in the year 1527.

Alaminos never returned to the Gulf shores. He went to Spain with the father of Fernando Cortes, and reported his own discoveries and those of Cortes, Grijalva, and Cordova. He was certainly the most intelligent and energetic of the Mexican Gulf-pilots. He was with Columbus in 1502–'03 in the waters of the West Indies and towards Yucatan. With Ponce de Leon he passed around Florida and the Lucayan Islands in the year 1512, and in the same year was with Ortubia on the voyage to Bimini. He accompanied Cordova to Yucatan in 1517, and in the following year went with Grijalva to New Spain. In the year 1519 he attended Cortes along the west shore of the Gulf as far as Ulloa; and in the same year went with Montijo as far as the river Panuco. His expedient in navigating to advantage by way of the Gulf Stream is commended by Humboldt. All the expeditions of this period, though conducted by others, may, so far as maritime history is concerned, be regarded as prompted by Alaminos.

DON ALONZO ALVAREZ PINEDA, 1519.

Francisco de Garay was a distinguished man who had been in the West Indies with Columbus, and to him had been committed the government of the island of Jamaica. Having become rich, he turned his attention to the north and west. When the reports of Cordova and Grijalva became known, the Governor of Jamaica believed himself entitled to a share. Garay possibly had some intercourse with the pilot Alaminos. The river Saint Peter and Saint Paul is not mentioned among the discoveries of Grijalva, but on many old charts it is marked as about midway between the river Panuco and Vera Cruz, and always to the south of Cabo Roxo. It seems that Alaminos regarded this as the limit of Grijalva's discoveries. Garay therefore fitted out four vessels while Velasquez was preparing his armament for Cortes. The command was given to Don Alonzo Alvarez Pineda, who sailed from Jamaica to the northwest early in the year 1519; probably about the time when Cortes sailed from Havana. Pineda, following the sailing directions of Alaminos, sailed from Jamaica early in the year, and coasted along the west side of Florida Peninsula in hope of finding some passage. Finding none, he held on westward and entered the river Panuco, where Montejo had been a few months earlier. He next visited the harbor at which Cortes had built his fortress of Villa Rica de la Vera Cruz, and from which Cortes had only a few days previous departed with his army for the conquest of Mexico. The ships of Pineda were destroyed by the forces of Cortes stationed at Villa Rica. That commander was absent at an Indian town some leagues away, but he hastened to the coast, and captured some of Pineda's men who had landed. From these he learned that the vessels had been sent by Garay, the Governor of Jamaica, and that they came from the north, where they had traversed more than three hundred leagues of the coast; and proposed arrangements in regard to the limits of their respective discoveries and governments. But Cortes declared that the river Panuco and all the countries of that region had been already taken in possession by himself in the King's name. So he held Pineda's men and enlisted them in his own army. He was not successful in an attempt to get possession of Pineda's

little fleet. The capture of the men must have been early in August of the year 1519. Cortes was about that time at Zempoala, and on his march to Mexico. Pineda remained forty days at the mouth of the river Panuco.

Pineda sent home with his report a chart of the Gulf of Mexico; and by Garay's messengers it was presented to the King of Spain. On that map are represented Florida, Cuba, and Yucatan, but the outlines were probably given by Alaminos, and to these were doubtless added the northern discoveries of Pineda.

There is another chart of the Gulf published in the year 1524 at Nurnberg, to accompany the second letter of Cortes, the date of which is October 30, 1520. This resembles the chart published by Navarrete, but is marked with more names. Cortes, in the second letter, does not refer to this sketch, but he relates particulars in regard to the capture of Pineda's men. It seems probable that we owe to Pineda all early knowledge concerning the northern part of the Gulf of Mexico. On the first charts the month of the Mississippi is indicated, with the name *Rio del Espiritu Santo*, and it was so designated by Spaniards for more than a century. To the east of it is marked on the early chart a bay, called "Mar Pequeña" (*i. e.*, Little Sea), and this is doubtless Chandeleur Bay. Of many names not now known on charts perhaps "Cabo Bravo" is an exception, as it marks the position of the Rio Bravo of our day, and perhaps gave origin to that name. Most of the designations were given by Pineda and the pilots of his four ships.

NARVAEZ, 1520.

The proceedings of Cortes in New Spain were regarded by Velasquez as rebellious. He therefore sent a large armament under command of Pamfilo de Narvaez, who had assisted him in the conquest of Cuba, and that commander was instructed to bring Cortes to obedience, and to complete the conquest of Mexico in the interest of Velasquez.

Narvaez sailed from Cuba early in March, 1520, with eighteen vessels, which carried nearly a thousand men as soldiers, sailors, and pilots. On the 23d of April he was at anchor off San Juan de Ulloa. Such developments as he may have made in geography are not known. His military undertaking ended in disaster. Made prisoner by Cortes, the men of Narvaez joined the banner of the conqueror. He was, however, energetic and subsequently acted on another part of the Gulf coast.

PINEDA AND CAMARGO, 1520.

Francisco de Garay, Governor of Jamaica, sent a second expedition into the Gulf in the spring of the year 1520. His men, under Pineda, found nothing attractive on the north shore of the Gulf; but near the river Panuco they saw the fine region now known as the province of Tamaulipas. There the natives had some gold. Pineda apparently did not know that he had been anticipated by Montejo and Alaminos; nor was Garay aware of the earlier advance of Cortes to the Rio Panuco. That commander, with the co-operation of Montezuma, had sent messengers to Panuco and obtained tribute in token of the submission of the Indian chiefs.

Garay committed the enterprise to Alonzo Alvarez Pineda, and as second in command Diego Camargo, and gave them three vessels, one hundred and fifty men, and the materials requisite for building a town and fortification. At Panuco, a settlement was begun, but probably at the investigation of Cortes the Indians attacked the settlers. In the constrained embarkation one of the vessels was wrecked. Pineda was killed. The remaining vessels under Camargo sailed south, and at Vera Cruz the soldiers went into service with Cortes. Garay had previously despatched two other vessels with troops to the river Panuco to aid in founding the colony; but, hearing of the disaster to Pineda, they went into the harbor of Villa Rica, and they also joined the army of Cortes.

PONCE DE LEON, 1521.

SECOND EXPEDITION.

When the fame of Cortes became great (says Herrera), the spirit of other adventurers was aroused. All desired to undertake something for reputation. There was a general move-

ment toward the northwest, and the earliest discoverer of Florida was affected like others of great energy. After his first expedition of 1512 he passed two years in Spain, and the King had conferred on him the title of "*Adelantado de la isla de Bimini y la Florida*," and the government of that province. But he was soon afterwards engaged in operating against the Indians of the Caribbean Islands, and subsequently lived in retirement at Porto Rico. In the year 1521 he fitted out two vessels and sailed to Florida. It is only known that he landed there after a boisterous voyage, probably on the western coast of the peninsula. He had a severe battle with the natives and many of his men were killed. Ponce de Leon himself was mortally wounded. He died of the hurt on the coast of Cuba. One of his vessels (Herrera says) went to Vera Cruz, and there Cortes bought her munitions and stores. After his death the title of Adelantado of Bimini and Florida was conferred on his son, Don Luis Ponce de Leon, but his name is not connected with any discovery or geographical development.

FRANCISCO DE GARAI, 1823.

Of two expeditions sent to the Gulf by Garai, the second ended in total loss. But regarding his large outlay, the King issued a decree granting him the government of the province of Arnichel with such rights as were then usual. But no mention was made of the limits nor of the boundary line of the province. Christoval de Tapia was to be sent out as a special commissioner to confer in what related to Cortes, but he returned to Spain in 1522 and had not settled anything. Cortes went forward with vigor in plans for conquest. He marched with an army from Mexico to Panuco and founded at the mouth of the river a colony called "*San Esteran del Puerto.*"

Garai meanwhile was preparing an armament for the same region. He fitted out eleven vessels and an army of nearly 1,000 men, and thus exhausted his own private means. The pilot of the fleet was Diego Mirnelo, a nephew of the Diego Mirnelo who was in service with Ponce de Leon. After a delay of two years the fleet sailed on the 26th of June, 1524. What Cortes had done was made known at a harbor in Cuba where the fleet touched, but the vessels nevertheless kept on, and reached the shore of Mexico near the mouth of the Rio de las Palmas. On all old Spanish charts that river is marked as at some distance to the north of Panuco; sometimes on the 25th and sometimes on the 24th parallel. The river is marked on a chart of 1520, which doubtless Cortes copied from Pineda's chart. It is the river now known as the *Santander.*

Garai sent a vessel into the river and it was explored to a distance of 15 leagues. Then his fleet was sent under command of Juan Le Grijalva to sail southward while he marched with the army in the same direction. At Panuco it was his intention to found a city to be named "*Garayana;*" but the march was through a desert. The army arrived in distress on the borders of Mexico, and the soldiers of Cortes were neither provided nor inclined to receive so many guests. Foraging parties were sent out. Of the fleet, six vessels were lost and the others were damaged. Only a short time before the arrival of Garai the royal decree was received in which Garai was peremptorily forbidden to land at Panuco, as that province was regarded as belonging to Mexico. Cortes promptly sent a copy and Garai recognized that he had erred. He resolved to retire with his fleet and army to the north and make a settlement at the Rio de Palmas. Orders were given to that effect, but his soldiers were reluctant and declared an inclination to stay where they were.

Garai concluded to join Cortes. He went to Mexico and was well received, but broken-hearted and poor he died soon after his arrival in the house occupied by Cortes. He made that commander the executor of his will; and one of his sons was betrothed to a natural daughter of Cortes.

After the death of Garai it may be said that the empire of Montezuma was wholly subject to Cortes, and he extended his views to more distant regions. He fitted out vessels on the coast of the Pacific Ocean, and also sent vessels to Central America, under Christoval de Olid. Another armament was destined for adventures on the northern shores. In his fourth letter to the Emperor Cortes remarks that "nothing seems to remain but to explore the coast lying between the river Panuco and Florida, the latter being the country discovered by the Adelantado Juan Ponce de Leon, and the northern coast of Florida as far as Baccalaos, because it is considered, certain that there is a strait which leads into the South Sea." The delusion continued, and twenty years after the time of Columbus many hoped to find a strait; if not between Florida and New Spain, it was thought that the strait might exist north of Florida.

Cortes had destined three caravels and two brigantines, and his direction was that they should advance as far north as the Baccalaos, *i. e.*, to Newfoundland. But soon after he was informed of the revolt of his captain, Olid, in Honduras, and felt obliged to march south. Moreover, disturbances in Mexico claimed attention in the year 1526 and 1527; and then the exploration and government had passed into other hands. By Cortes, more than any other adventurer, the Gulf of Mexico became known in Europe; and it was soon the center of flourishing commerce. But he made no general chart; and that fact is the more singular because he organized his plans for conquest by means of a sketch drawn at his request by Montezuma.

NARVAEZ, 1527–1536.

Don Luis Ponce de Leon, on whom the title of Governor of Florida had devolved from his father, remained inactive; and this seems to be true also of the son of Garai, to whom a daughter of Cortes had been betrothed. Cortes had promised protection, but the spirit of adventure found place only in Pamfilo de Narvaez, who had been previously engaged in explorations on the Gulf coast. He had been with Velasquez to Cuba; had carried a fleet to Mexico; and had been unfortunate in an expedition against Cortes, who took him prisoner, but, at the request of Garai, liberated him and gave him means to return to Cuba and to Spain. He was rich, and offered his services for the conquest of the north parts of the Gulf, and in the year 1526 made with the Government a treaty signifying that he should be allowed to assemble a naval and military force, and with it discover and possess all countries north of the Rio de las Palmas on the frontier of New Spain to Florida, and that he should found a settlement from one sea to the other, and report on all that was worthy of record. The commission was ample, as it comprised the settlement of our present Southern States, with a shore line of more than 1,200 nautical miles. If Narvaez had fulfilled his commission, Cortes would have been confronted by a powerful rival. At the same time a commission was given to Francisco Montejo as Governor of Yucatan, and to Pedro Alvarado as Governor of Guatemala. These may be regarded as intended to check the influence of Cortes. He had treated Narvaez generously after his defeat, but they could not be regarded as friends.

The government included in the boundaries was named "El Govierno del Rio de las Palmas," and it was expressly said that in this government should be included all that was called Florida. Narvaez was made Adelantado and Captain-General. Amongst other officers appointed by the King was the treasurer of the expedition, Cabeça de Vaca.

Narvaez sailed from San Lucas, in Spain, on the 17th of June, 1527, with five vessels and six hundred men. After crossing the Atlantic he touched at Saint Domingo, and there one hundred and fifty of his men escaped. Near Cuba the fleet suffered by a hurricane, but at that island he passed the winter. With the assistance of one of the most wealthy and generous of the proprietors (Vareo Porcallo), he collected there a store of provisions and engaged other ships and men, and also the chief pilot, Diego Miruelo, who deserves particular mention, as he had accompanied Garai on his expedition to Rio de las Palmas. He was, moreover, a nephew of the Diego Miruelo who was with Ponce de Leon and afterwards with Lucas de Ayllon. Cabeça de Vaca and Herrera record him as an experienced pilot of the Rio de las Palmas and of the north coast, but it seems unlikely that Miruelo could gain much experience with Garai in the year 1523. More probably he was with Pineda, in the year 1519, around the north line of the Gulf coast.

In March, 1528, Narvaez sailed from the south coast of Cuba, doubled Cape San Antonio in bad weather, and sailed towards Havana, but because of very stormy weather he was unable to enter that port. He was near the coast of Florida early in April, and on the 13th of that month anchored in a bay, which was found to be extensive. This was doubtless Tampa Bay. In the huts of the Indians who lived on the shore were found such boxes as the Spanish merchants then used for their goods; and they were likely the remains of some wreck. Pieces of cloth were also found like the stuff used in New Spain. The natives said that these articles were from "Apalache," and that such goods were plenty there, as also gold. That place was sought, and it seemed best to send the soldiers and horses to go on land while the fleet kept near the shore to find a harbor. The army moved on the 1st of May, leaving the fleet under command of Carvallo, with direction to

anchor at some safe place. In case of delay the vessels were to sail to Cuba and bring provisions to the Bay of Santa Cruz, where all the forces were to join. It has been well made out that the bay last mentioned is what is now known as Tampa Bay.

With about three hundred men Narvaez marched during a fortnight to the north and reached a great river. One day was spent in passing it, with such labor that the forces rested for several days. Two exploring parties went by the coast to look for a harbor. They found a shallow bay, and it was probably the water at Cedar Keys. The river was doubtless the Withlacoochee, or the Suwanee. The party saw nothing of the coast again, but kept on in search of "Apalache," and came in sight of a village on the 24th of June. They took possession and found some maize, but nothing else of consequence. On the 27th of July they reached Ante, and saw many bays, but the Gulf coast was not in view. One-third of the army had died or was sick, and the horses which carried the sick were exhausted. The ships were not in sight and means of subsistence could be had only by battles with the natives. On the 22d of September, after having eaten the last of their horses, the party embarked in four wretched barges, and moved westward along the shore of a bay which they named Baia de los Caballos, *i. e.*, Bay of the horses. This was no doubt the expanse now known as Saint George's Sound. Near Saint Mark's De Soto found the remains of the forge used by Narvaez, and also some skulls of horses.

The party of Narvaez kept on westward, following the bay shores and inlets, and on the 29th of September came to an island near the shore (Saint Vincent's Island), and passed a strait which they named Saint Miguel. This corresponds with what is known now as Indian Pass. Keeping on westward for thirty days they probably were in the vicinity of Mobile Bay about the end of October. Then an island is mentioned where they remained six days, and soon after a bay, which was full of islands. This was perhaps Chandeleur Bay. Soon they took fresh water from the sea, and it may be supposed that they were then at the delta of the Mississippi. By the current they were forced away, and a heavy norther carried them into the Gulf. Two of the boats foundered, but the one which carried Narvaez remained and was at anchor when a sudden flaw of wind occurred. There was on board besides the Governor only two sick men, and neither provisions nor water. They were never seen again, and thus perished in November, 1527. The shore party endured great distress, but nearly all perished from hunger and fatigue. Soto Major was one of the only two survivors, but he died, leaving Esquivel, who wandered in search of subsistence. To another of the shipwrecked Spaniards he told of the fate of Narvaez, and then disappeared. Figueroa subsequently met Cabeça de Vaca and to him recounted the misfortune.

Before Narvaez set out from Tampa Bay to the interior, the pilot, Miruelo, was sent, as already stated, to look for a harbor; but three of the ships were left at Tampa, under Carvallo, with instructions to go up along the coast and to join the other vessels. Miruelo, not finding his supposed harbor, turned back in accordance with his instructions and sailed to Cuba, and from thence dispatched a vessel with provisions to Tampa Bay. Carvallo, with the remaining three ships and a hundred men, sailed north, but finding no harbor turned back and joined Miruelo at Tampa Bay. Their search for Narvaez seems to have employed nearly a year, and as it was fruitless they sailed to New Spain. The old charts are marked with the name "Miruelo Bay" in the place occupied in our maps by the name Apalache Bay.

Cabeça de Vaca, after being separated from Narvaez by currents and storms early in November, 1527, probably near the Mississippi delta, was, after rowing some days in the boats, at an island where some shipwrecked Spaniards were assembled. There they wintered, and it was very likely on one of the islands of Mississippi Sound. Four of the Spaniards started westward in search of Panuco. Their names are given in the narrative, but nothing else is known concerning their fate. Some preferred to remain with Cabeça de Vaca on the island Malhado, and there were survivors six years later. They sustained themselves by fishing and hunting, and were constrained to work for the Indians, who treated them as slaves. Finally, in the year 1533, the two Spaniards resolved to leave the region by going westward. On the west side of the Mississippi Lope de Oviedo separated from Cabeça de Vaca and was not heard of again. But the adventurer last named found three other Christians who were held as slaves by the natives. These were Andreas de Dorantes, Alonzo de Castillo, and Estavanico, a black servant. They associated, escaped, and started westward, and in the course of two years reached a Spanish settlement near the Gulf of

California. Soon they were conducted to Mexico, and there the Viceroy Mendoza and Cortes received them with kindness. Of the names added to charts of that period only the name Apalache remains. The geographical results became known in time. Miruelo and Carvallo returned in 1528; but Cabeça de Vaca was absent from Europe until the year 1536, and his observations were not published until the year 1555, when they were issued in Valladolid.

Cabeça de Vaca was willing to return if the Emperor would confer on him the government of the regions through which he had journeyed, but Don Fernando de Soto appeared at the same time in Spain. He had been in service with Pizarro and had acquired wealth. He lent money to the Emperor, lived in comparative splendor, and added to his influence by marriage with a lady who belonged to one of the most influential families of Spain. His ambition stirred at the mention of vast regions, traversed by Cabeça de Vaca, and he requested of the Emperor a commission, and was made Adelantado of Florida. The government of Cuba was at the same time conferred upon him, as the port of Havana was best suited for fitting out vessels for any purpose.

De Soto used his own means largely in fitting out the armament, and besides he had assistance from wealthy young noblemen of his acquaintance. Even from Portugal a number of cavaliers offered their services. The armament sailed from San Lucas in Spain in April, 1538, with a force of upwards of six hundred officers and men, and after being two months at sea reached the coast of Cuba at Santiago. After settling the details of government he marched to Havana, while the fleet, passing around Cape San Antonio, made for the same port, and there the entire force was assembled at the end of summer.

Somewhat earlier, Havana had been plundered and burnt by French pirates. De Soto rebuilt the churches, and fortified the place against another attack. He was thus occupied during the autumn and winter of 1538–'39. It is not known that he derived any advantage from the exploration made by Miruelo and Cavallo, the pilots of Narvaez, nor is anything known of the further career of those two mariners. They are not mentioned as being with the party of De Soto, but it seems very probable that he had in his command some of the explorers and pilots who had been in Florida. He had a certain Juan de Añasco, who had repute as mariner, cosmographer, and astrologer, and Añasco was sent in the autumn of the year 1538 with two small vessels to coast along Florida and note the ports, inlets, and bays. He went out probably in September, and two months afterward was again at Havana. Not satisfied with the results, De Soto sent him back with instructions to explore the coast with accuracy. Three months later Añasco brought information concerning a convenient harbor, but there is neither chart nor ship journal as the result of this voyage.

DE SOTO, 1539.

De Soto sailed from Cuba on the 18th of May, 1539, with a fleet of five large ships and two smaller vessels. He had a force of about seven hundred cavaliers, soldiers, and sailors. The largest ship had once carried the flag of the Admiral Don Pedro de Mendoza to the river La Plata. She had also been on a voyage to Mexico.

The fleet sailed directly to the port described by Juan de Añasco and arrived on the 25th of May, at the harbor where Narvaez had landed; *i. e.*, Tampa Bay. There he pitched a camp and made short visits from it to the interior to gain information from the natives. A Spaniard was found amongst them, Juan Ortiz, who had been with Narvaez and Miruelo. By the Indians he had been held eleven years. As he could converse in one of the Indian dialects of Florida he was able to serve as an interpreter.

De Soto sent his large vessels to Havana and stationed at Tampa only three small brigantines with some soldiers and horsemen. These were for service under Captain Pedro Calderon. De Soto set out for the interior with his principal force early in June. He marched first in a north-eastern direction, and then (like Narvaez) having received some promising reports in regard to the country "Apalache," he went north and northwest; and passed several rivers, one of which was very probably the Suwannee. Of other rivers named at the period, none can be identified except the Ocilla.

After marching four months De Soto reached Apalache, on the 27th of October. The narrative

mentions nothing of vestiges of Narvaez, but several excursions were made to the north and to the east and west. Juan de Añasco went southward and found the village of Ante which is mentioned in the narrative of the Narvaez expedition. On the Gulf coast he found also the forge used by the workmen of Narvaez, the skulls of horses, and some other vestiges of the encampment. The Indian guides related particulars of the former disaster. Añasco sounded the bay of Ante, which is now known as Apalachee Bay. This service was of consequence to De Soto, and he decided to move his army and vessels up from Tampa Bay. Juan de Añasco was sent with thirty strong horsemen, and traveling near the shore he passed many swamps and river entrances. In ten days' travel he reached Tampa Bay and there found Calderon with the vessels. One of the ships was sent to Cuba with letters and dispatches to the wife of De Soto, and festivals were made to celebrate the success of the conquest of Florida.

The two remaining vessels were refitted and sailed under the command of Añasco towards Apalachee Bay, where they arrived on the 28th of December. These were no doubt the first European vessels that entered there. Meanwhile Pedro Calderon and the army set out from Tampa Bay and marched along the shore. They reached Apalache after the arrival of Añasco in Ante, *i. e.*, on the 3d of June, 1540. We know nothing of their observations, but Garcilasso de la Vega describes their sufferings and battles with the Indians. No mention of latitude is made in his narrative, and seldom is any geographical particular referred to.

DIEGO MALDONADO, 1540.

De Soto intended to make an expedition to the north from Apalache, and wished also to examine the country westward. He therefore dispatched the vessels under Maldonado to look into the bays, rivers, and ports in this section of the coast, but with instructions to return to Ante in two months. Maldonado sailed early in January, 1540, returned at the time appointed, and reported that he had found an excellent harbor 60 leagues from the Bay of Ante. From the description given there can hardly remain a doubt that the place mentioned was Pensacola Bay, and Maldonado was the first European that entered. This he did doubtless in the middle of February. Under orders from De Soto, a report was made by Maldonado and taken to Havana, in hope that settlers from Cuba might be induced to move. To such end Maldonado was ordered to provide facilities; to build vessels; take settlers, horses, seeds, &c., provisions, clothing, and ammunition. He was to return to Achusi in October, and was specially directed to bring back Gomez Arias, whom De Soto wished to retain near him. He received also from Maldonado two Indians, who were to act as guides in travel, and very probably he had also a copy of the coast chart made by that navigator. He made a "full report," but no copy is extant.

On the 3d of March De Soto moved northward with his army from Apalache, and passed through the middle parts of Georgia and South Carolina. He had the mountains in view, but came in sight of the coast of the Gulf in the middle of October, 1540. Historians designate the place as "Mavila" or "Manvila," and it is now called Mobile. Previously the Spanish maps showed only a few rivers, but many water courses were marked after the time of De Soto. Some of the names then attached can yet be recognized, as, for example, Coca (the River Coosaw) and Tascaluca (now Tuscaloosa).

Doubtless De Soto intended to join Maldonado at Pensacola; but he had a severe battle with the Indians at Mobile, and lost so much baggage that his soldiers were dispirited, as were also the officers, who deemed it best to return to Cuba. In order to check the tendency to retreat, De Soto gave orders for marching to the northwest.

After the discovery of Pensacola Bay Maldonado went to Havana, and there found many that were willing to assist in the support of De Soto. He was soon provided with means, but finding no Spaniards at Pensacola Bay, Maldonado and Gomez Arias sailed in different directions in hope that the army might be in view from the coast. On prominent places they left letters in trees and on rocks stating what was intended in the ensuing spring. But at the approach of winter they were constrained to return to Havana without any intelligence concerning De Soto. No settlement seems to have been attempted at Pensacola Bay.

De Soto had been informed by the natives that Spanish vessels had passed along the coast;

and was told also that Mavila, where he had a battle, was not far from Achusi. But for reasons of his own, he kept a northwest course and wintered (1540–'41) at an Indian village named "Chicaça." This is probably now represented by the word *Chikasaw*. So also the name given by Herrera and Vega as "Alibamo" is doubtless identical with what is now written *Alabama*. At Chicaça there was a contest with hostile Indians. Their village was burnt and also the Spanish camp, and in it were destroyed the baggage, some horses, and also pigs on which the Europeans relied for subsistence.

On the 25th of April, 1541, De Soto renewed his search for the gold region, going as before northwest. After many battles with savages he reached a place called *Chisca* on the bank of the great river which the Spaniards named Rio Grande. This was afterwards and is yet known as the *Mississippi*. The exact date of the discovery cannot be fixed, but it must have been an early day in the month of May of the year 1541. De Soto remained at the place thirty days (until the 4th of June) and constructed barges for crossing the river. It was found to have a strong current. The water was muddy; much floating timber was seen; and there were several kinds of fish. De Soto came in sight of the river probably near the mouth of the Arkansaw at Chickasaw Bluffs. He traced the river upwards to a place named Pacaha, but the latitude cannot be fixed. It may have been near the mouth of the Ohio. His party went westward of the river about 200 miles, and again approached the buffalo country of which he had heard previously. In the autumn he came back to a place named Autiam (probably the Wachita River) and there passed the winter of 1541–'42. He thought of returning to the gulf by the river course, but became sick and died on the 21st of May, 1542, on the bank of the river at a place called Guachoya, which was probably not far from the mouth of Red River. He was buried in the water of the great stream which had been discovered under his leadership.

Maldonado and Arias had gone, the one westward toward Mexico, the other to the vicinity of Newfoundland, but there is no circumstantial account of these expeditions.

After the death of De Soto, the Spanish explorers debated the question as to the expediency of following the course of the river or passing to the interior westward. Luis de Moscoso, on whom devolved the command of the army of De Soto, held a council, and it was decided that the land route should be followed. Some of them had seen the map of the country and judged that Mexico would be only about 400 leagues distant. The natives told of another body of Spaniards in the west of Florida, and these no doubt were part of the expedition of Vasquez de Coronado traveling near the heads of the Arkansas and Red Rivers. The Spanish navigator Cabrillo, while on the coast of California, seems to have been told by natives of the movements of Coronado.

Moscoso probably led his men to the interior about 150 leagues from Guachoya, and the course taken is repeatedly stated as being to the west. It probably inclined southward and passed into Texas. Amongst Indian names mentioned by Moscoso's historians is "Naguatex," probably the present *Nacogdoches*. The journey was closed at a great river named by the natives "Daycoa." It is probably now known as Brazos River.

The Indians of the region provided the Spaniards repeatedly with fresh buffalo meat and with buffalo skins, but neither Moscoso nor either of his men saw any of those animals alive, and, as the party advanced, the country appeared to be more desolate. Their principal food, maize, became very scarce in the Indian settlements. Nothing could be learned respecting Christian travelers, and they returned to the Mississippi Valley. There they found maize and decided to follow the river course. After many hardships they reached an Indian place at the end of November, 1542.

Maldonado and Arias set out again from Havana in the spring of the year 1542, when De Soto was on his death bed, and their movements were seconded by Doña Isabella de Bobadilla, the mourning wife of De Soto. Seven months were passed in examining the shores, but the route taken is uncertain. In the autumn they returned to Havana without result, intending after winter to start again.

The place, "*Nilco*," reached by Moscoso in November, 1542, was probably near the mouth of Red River, and there it was that De Soto died. Early in December they stopped at another place, called Aminoya, where provisions were more plentiful. In the course of the winter seven vessels or barges were so constructed that they might be used at sea or with oars in rivers. These were no doubt the first vessels built in the valley of the Mississippi. While the water was high the Spaniards were not molested, but when the freshet lessened the savages became troublesome. A young

Indian chief, Quiqualtanqui, raised a general conspiracy for the destruction of the foreign intruders. Moscoso held his course only by repeated contests with the savages.

The Spaniards started at Minoya on the 3d of July, 1543, and were followed by a fleet of hostile canoes, which kept always in sight. They had frequent encounters and a number of Spanish officers and noblemen were killed. The last battle was no doubt near the site of the city of New Orleans. There the Indians disappeared, and soon after the Spaniards noticed evidence of being near the sea. At the Delta they saw masses of drift timber, and landed for the repair of their vessels. Near the Gulf the depth in the channel which they followed was 40 fathoms.

Moscoso passed into the Gulf of Mexico on the 18th of July, but having no compass nor instrument for determining latitude, they did not venture far from land. Turning to the west, they kept the coast in sight and sought for the entrance of the Rio de las Palmas. In the course of fifty days they landed frequently to procure fresh water, avoid storms, and for the purpose of taking fish. Finally they saw palm leaves floating on the sea, and some mountains were then in view. These must have been the highlands of Tamaulipas. On the 10th of September, 1543, they landed at the mouth of the river Panuco. The ships had been separated, but they arrived in succession, bringing about three hundred fur-clad adventurers, who were received with great rejoicings.

In the spring of 1543 Maldonado and Arias again took the field in hope of finding traces of De Soto. Their route is not known, but it is certain that they arrived at Vera Cruz in the middle of October, and there they learned that Moscoso with three hundred men had reached Panuco and brought intelligence of the fate of De Soto. In sadness the two explorers returned to Cuba and informed the widow, Donna Isabella de Bobadilla, whom there is much reason for regarding as the promoter of the searching expeditions which have been related. More than three hundred of the force led by De Soto returned to civilization, and being widely dispersed, the information which they brought was soon known in Europe.

ANDRES DE OCAMPO, 1543.

Coronado returned along the channels of the Gila and Colorado Rivers, and through Sonora and along the Gulf of California; but some of his companions, and amongst them a Portuguese named Andres de Ocampo, remained somewhat longer in the North. The friars were killed by the Indians, but Ocampo escaped and found his way back to Mexico. Gomara says, "He passed from Quivera through the country of the Chichimecas and came out at Panuco." This journey was through the region now known as Texas. Towards the same region appear to have been directed the travels of the Franciscan monk Andres de Olmos. Of him Barcia relates that in the year 1544 Olmos came to Panuco, and from thence went as a missionary northward to the country of the "Chichimécas bravos, on the confines of Florida." He says that he traveled more than 400 leagues, and that he collected and baptized some Indians and settled them at Tamaulipas. Other travels were undertaken under the leadership of Julian de Samano and Pedro de Ahamada. These ascertained that the northern regions afforded good furs, and that some pearls had been found, but means could not be obtained in Spain for verifying the statements.

After the return of De Soto's men many schemes were proposed for the conquest of Florida. A Dominican friar, Luis Cancel de Barbastro, after missionary experience amongst the Indians, proposed to go to Florida. His plan was approved by the Emperor, and the Viceroy Mendoza was directed to fit out a vessel. The command was given to Captain Juan de Arana, and the ship sailed in the year 1549 from Vera Cruz to Havana, and from thence to the west coast of Florida. She touched the land on Ascension day in about 28° of latitude. The intention was to land at Tampa Bay, but missing that entrance the party landed at Apalachee. There the Indians who had withstood Narvaez and De Soto soon killed the missionaries, Fray Diego de Tolosa first and then Father Luis Cancel. Other missionaries, one of whom was Father Beteta, were willing to try their best on another part of the coast, but Captain Arava being short of provisions took the first favorable wind and arrived in Mexico on the 19th of July, 1549.

Beteta and his associates were willing to go to the place where Father Cancel perished, but their offer was not accepted. The particulars are worthy of note only as accounting for slow progress in geographical development along the coast of Florida.

The dangerous navigation of the Gulf of Florida was the occasion of several shipwrecks, and those who survived disaster at sea were generally killed by the Indians. Some held as prisoners were rescued by Spanish visitors, and made known their adventures afterwards in Europe. The first shipwreck of which some particulars are known, occurred in the year 1545. Doubtless the vessel was large, as two hundred of the persons on board were killed by the Indians. Some were reserved and held as slaves, and of these some were alive twenty years after their capture. One was liberated by the Spanish Governor, Don Pedro Menendez de Aviles, about the year 1566, and in the preceding year another was saved by the French commander Jean Ribaut.

In the year 1551 a ship was wrecked near Cape Florida. The vessel was Spanish, and was returning with gold from Peru, under Captain Juan Christoval. Among the passengers was a young man, Hernando Escalante de Fontaneda, who, "though the poorest of all, had with him 25,000 *pesos de oro*." Nothing is said of the fate of other passengers, but young Fontaneda became a slave to the Indians, and traveled in the country sixteen years. He was finally liberated and sent to Spain by Menendez about the year 1566. Fontaneda wrote a narrative of his adventures but it is of interest only as furnishing a basis for the remarks made by Herrera respecting the Indies. That historian mentioned many names taken from Fontaneda.

A more disastrous shipwreck occurred in the year 1553. The great Mexican fleet sailed in the spring of that year from Vera Cruz and reached Havana with a thousand persons, including sailors, soldiers, and wealthy passengers. The ships carried gold, silver, and other valuable products. In passing the Bahamas the currents put them out of the intended course, and by a storm they were thrown on the coast of Florida, where most of the vessels were sunk. Of the smaller vessels one returned to Vera Cruz and the other reached Seville in Spain.

GUIDO DE LAS BAZARES, 1558.

Philip II became King of Spain in the year 1555, and then the Viceroy of Mexico was Don Luis Velasco. New orders were sent for the conquest and settlement of the vast regions north of the Gulf of Mexico. There public affairs had flourished under Velasco, and much treasure had passed to Spain. The field of discovery was extended northward, and in the year 1555 a mining establishment was opened in the valley of one of the branches of the Rio Bravo del Norte. This for a long time was the most northern settlement in New Spain.

In the council of the Indies in 1557 it was decided to send an expedition to Florida, and in the following year an armament was prepared. The viceroy fitted out eleven ships and collected an army of fifteen hundred officers and men. All were taken by preference who had some knowledge of the country. Some who had been shipwrecked were included, and some who had been held as slaves by the Indians. Some Indians who had adopted Spanish customs were accepted.

Among the captains of this army (says Barcia) were six who had been in the province of Coça, and there for a time kept in slavery. The province of Coça (Coosa) is often mentioned by the historians of De Soto, but no writer mentions the return of the captives to Spain. The command of the army and fleet was given to Don Tristan de Luna y Avellano, a son of the Marshal Don Carlos de Luna. As usual a preliminary examination was made to find a harbor proper for the fleet. The reconnaissance was conducted by Guido de los Bazares, and this was probably his first service, as his name is not mentioned in any earlier record.

Velasco, the viceroy, gave to Bazares three small vessels with sixty soldiers and sailors, and the fleet left Vera Cruz on the 3d of September, 1558, with instructions to examine the whole of the north shore of the Gulf. Bazares sailed to Panuco and from thence coasted north. He landed at a place on the coast of Texas, and proceeding some miles northward found a large bay which he called Bahia de San Francisco. This was probably Matagorda Bay. He then went (as he says) to the "Alacrans," and seems to have passed along the coast to the east of the Mississippi. Much shoal water was traversed. He named the place Bay of Shoals, and it was probably Chandeleur Bay. Going eastward 10 leagues he entered a spacious port, and named it Bay of Philip, in honor of the King. This was Pensacola Bay. "On the whole coast (says Bazares) no port is to be found so commodious as this Baia Felipina." He found 3½ fathoms of water on the bar. The breadth of the entrance is given as half a league, and on one side was an island 7 leagues in length. In the back ground of the bay, hills of red clay were seen. Bazares sailed eastward 20

leagues from Pensacola entrance, and then observed that the trend of the coast changed to southeast. He was twice beaten back by contrary winds from the vicinity of Cape San Blas, and the weather became rough and cold. But, as he had found a port for the expedition of General Luna, he deemed it proper to return to Mexico, and he reached Vera Cruz on the 14th of December, 1558. It is remarkable that the narrative of Bazares contains no allusion whatever to the previous explorations and discoveries along the coast of that vicinity by Maldonado and Arias Gomez, who had been there repeatedly. Bazares mentions all his results as new discoveries. But as only fifteen years had elapsed some of Maldonado's pilots and companions were probably alive in some of the harbors. Cortes made no mention in his letters of the previous exploring expeditions of Cordova and Grijalva along the coast of Mexico and Yucatan, nor would he allow his soldiers to mention their names in the letters which they sent to Spain.

On the 11th of June, 1559, the fleet of Don Tristan de Luna sailed from Vera Cruz to the northward. The chief pilot of the expedition was Juan Rodriguez. After being seventeen days afloat they reached the mouth of the Mississippi, and eight days afterwards came in sight of the coast of Florida, probably in the vicinity of Cape San Blas.

The expedition of De Luna was unfortunate. Soon after the army was landed a hurricane destroyed the fleet. Only one ship was left, which happily had started for Vera Cruz. The army suffered for want of subsistence. The province of Coosa was sought, but it was a vast wilderness filled with savage tribes. Some of the soldiers perished with hunger and thirst, and others were killed in battles with the savages. In one of the expeditions it seems that they approached the Mississippi and crossed it.

French Protestants had made settlements on the coast of Florida, at places that seemed to threaten the safety of the Spanish silver fleets on the home voyages, and these induced expeditions conducted by the Spanish Admiral, Don Pedro Menendez de Aviles; he was an officer of distinction, and had served under Charles and Philip II. In the American colony he had gained wealth. His only son commanded the Mexican fleet, which, as already stated, was cast away on the coast of Florida, in the year 1553. Eleven years afterwards when liberated from an accusation, he requested permission and assistance for sending an expedition to Florida. The grant was conferred by the King, on condition that Menendez should make a survey of the Florida coast, and try to effect some settlements. His fleet was, therefore, in lieu of a searching expedition enlarged to the number of ten vessels, which carried six hundred men as officers, soldiers, sailors, and landsmen. The conditions in his instructions enjoined that within three years he should explore the country of Florida, including inlets and bays, and "mark them so that they could be laid down on the sea charts and made known to mariners; he was to survey the ports, rocks, and currents, and make a description of them, so that the secrets of the coast might be brought clearly to light." Meanwhile it was expected that he should settle six hundred men to cultivate the country, plant sugar cane, and erect forts for defense, as amongst the valuables landed were one hundred horses, two hundred head of cattle, four hundred swine, and the same number of sheep and goats. The outfit was ample, and the privileges extensive.

But when Menendez was about to sail it became known in Spain that French Huguenots had settled on the coast of Florida, and it was also said that French reinforcements were to follow. The Spanish King, therefore, enlarged the commission of Menendez, and authorized him to attack and promptly destroy any heretics found in Florida. The entire armament consisted of thirty-four vessels, and upwards of twenty-six hundred men. Menendez was made perpetual Adelantado, hereditary Governor, and Captain-General of Florida. He hastened to that coast, came suddenly upon the French, and destroyed them in September, 1563. After erecting some fortifications he sailed to Havana, and was there joined by all the vessels of the fleet. Further means were then taken for search respecting his son. Some ships were sent to Saint Augustine, and in person he went to the west side of the peninsula on the 10th of February, 1566. At Charlotte Harbor he found some Christians held as captives by the Indians. These he liberated, but he could hear nothing concerning his son. He passed along and examined the Florida Keys, in March 1566, but no sketch or map is extant if any was made.

Of the geographical names introduced by Menendez only two deserve mention. One is Tegeste, for a place near Cape Florida, and the other is Tocobaga, for an Indian chief and tribe

near Apalachee Bay. Both names are frequently mentioned by Herrera, and doubtless he took them from Menendez. The names occur on maps of the period, and on some were applied to the greater part of Florida.

After many struggles with the French, with the Indians, and even with his own soldiers, and some excursions east and west on the peninsula, Don Pedro Menendez returned to Europe in the year 1567. The King (Philip II) gave him 200,000 ducats, and made him Governor of Cuba.

In the year 1573 Don Pedro Menendez de Aviles gave the government of Florida to his nephew, Menendez Marquez, who undertook some nautical surveys along the Atlantic coast.

FRENCH AND ENGLISH ADVENTURERS, 1555–'67.

French and English privateers followed Spanish navigators at an early date in the West Indies. One English adventurer is mentioned as appearing at Porto Rico as early as the year 1519. The French seem to have led the advance in the Gulf waters.

Spanish historians relate that shortly before the arrival of De Soto the town of Saint Jago de Cuba had been visited by a French pirate, and that another pirate arrived at Havana in August, 1538, and destroyed the town. This seems to be the earliest intimation of the presence of Frenchmen in that quarter.

Hakluyt mentions as the first English adventurer in the Gulf of Mexico a certain Robert Tompson, who had settled at Seville with another Englishman named Fields. Both obtained a royal license to go on commercial affairs to the West Indies. At the Canary Islands they embarked on a Spanish vessel commanded by Capt. Leonard Chilton, who had married in Cadiz. The owner of the ship was John Sweeting, an Englishman, who had settled in that city. They sailed in company with other vessels, and by way of San Domingo reached Vera Cruz in April, 1556. So far as we know, this is the first English voyage to that part of the Gulf of Mexico. Tompson's travels into the interior of Mexico have no interest for our narrative of coast discovery or development.

Roger Bodenham, another Englishman settled at Seville as a merchant, also went to Mexico. He says that he embarked on that Mexican fleet that crossed the ocean under command of Don Pedro Menendez in May, 1564. But the date thus given is erroneous, as it is known that Menendez sailed in June of the year 1565. Moreover, his expedition went only to the east coast of Florida. It is true, however, that Menendez conducted a great merchant fleet across the ocean in the year 1556, and possibly Bodenham went out with that fleet. We know that the son of Don Pedro Menendez was shipwrecked with a returning Mexican fleet in the year 1553 on the coast of Florida.

Hakluyt mentions the voyage of a certain John Chilton, and also the voyage of Henry Hawkes, both of whom went to Mexico. But these peaceful excursions were followed by warlike expeditions.

Sir John Hawkins, in the year 1562, took negro slaves to San Domingo, sold them there, and with the proceeds took a valuable cargo, and returned to England by way of Florida Keys. He was again in the Gulf three years later, having sailed from England with three vessels on the 18th of October, 1564. On that voyage also he took slaves to the West Indies, and compelled the Spanish settlers to buy them at his own price.

After traversing the Caribbean Sea, the vessels arrived at Cape San Antonio on the 17th of June, 1565. By currents the navigation became difficult, but after some trouble he again entered the Gulf of Florida. Hawkins was the first Englishman who explored the Tortugas Islands, and in July he passed the Bahama Channel and coasted along the east side of the Florida peninsula.

For his third voyage Hawkins sailed from Plymouth in October, 1567, with six vessels. Passing as before by way of the coast of Africa, he took negroes, went to the Caribbean Sea, and from thence to Cape San Antonio. But, when near that cape, he was encountered by a furious storm on the 12th of August, 1568, and was forced into the Gulf. While seeking a port on the west coast of the peninsula, a hurricane from the eastward constrained him to cross the Gulf and take refuge in the port of San Juan de Ulloa. On the way, however, he captured three Spanish vessels with passengers, in the hope that he might procure water and provisions as their ransom.

The port of Vera Cruz was entered without opposition; but a few days after the arrival of Hawkins he was attacked by a Spanish fleet which had brought out the new Mexican Viceroy, Don Martin Henriquez. Many of the English were killed, some were captured, and only two of the ships, the Minion and the Judith escaped. These were soon after separated, and in the Minion, the commander with a shattered vessel floated fourteen days on an unknown sea. On the 8th of October they reached land somewhere near the mouth of the Rio de las Palmas, the boundary between Mexico and Florida. At Vera Cruz some of the crews of the wrecked vessels had been taken on board of the Minion. The ship was so much crowded that some of the company preferred to risk their lives on shore, either amongst the Indians, or by trusting to the benevolence of Spanish settlers. After taking in water for the voyage Hawkins sailed, and after enduring many hardships arrived in England on the 20th of January, 1569. Doubtless the party left, about one hundred, landed near the River Santander. Differing in regard to the best course for their extrication, fifty of the number traveled along the coast southward, in hope of finding a Spanish settlement. The others went northward. They chose as captains or leaders John Hooper and David Ingram. But being soon attacked by hostile Indians, twenty five of the party returned and joined those who had traveled southward. The remaining twenty-five kept on northward and with them was Ingram. They marched towards the Rio Bravo; but nothing is known of their fate.

Hakluyt mentions only one other English captain as having entered the Gulf of Mexico, up to the close of the sixteenth century. This was William Michelson, in the ship Dogge, who chased and captured several Spanish vessels. He was, however, encountered by a Spanish man-of-war and narrowly escaped capture. As a companion of Hawkins, one who in time became famous, was Sir Francis Drake. He was in the Gulf in 1568. Hakluyt seems to have been the first in the issue of sailing directions, but the notes were probably transcribed from Spanish documents, as the orthography of the Spanish names is perfect. The descriptions, however, make no reference to points above the twenty-fourth parallel, nor to harbors of the north and west coast of the Gulf; but the Florida Keys and the Tortugas are mentioned. At this time no sailing directions had been compiled in Spain. After the disastrous expeditions of Narvaez, De Soto, Luna, and others, a Spanish author of the period exclaims: "To the south! to the south! there lie our treasures," and that feeling seems to have been general amongst his countrymen.

On the Atlantic coast also where the Spaniard Gomez had coasted even to New England, and Menendez had planned a colony on Chesapeake Bay, progress was stopped. On the Pacific coast, Cabrillo and Vizcaino had passed above Cape Mendocino, but nothing was done afterwards for more than a hundred and fifty years. Occasionally some earnest religionist offered for a missionary tour to the north, but the attempts made did not prosper.

Some disastrous shipwrecks induced orders for the survey of the Florida Keys and other parts of the coast, but no record is left if the surveys were made. Each year the Spanish fleets, with treasure from the Mexican mines, made their voyages through the middle and northern parts of the Gulf, but it is not certain that any vessel at that time passed into the Mississippi Delta. The settlements founded by Cortes in Yucatan and Mexico were maintained, and attempts were made to extend them northwards, but the progress was very slow.

Usually the fleets from Spain passed south of Dominica or Guadaloupe, and sailed along the southern coasts of Porto Rico, San Domingo, and Cuba, and then rounded into the Gulf by way of Cape San Antonio. Menendez, in the year 1567, was the first navigator who entered from the eastward against the Gulf Stream in order to reach Havana, but in general the custom was retained to sail by the south shore of Cuba. From Cape San Antonio to New Spain two routes were used, one for summer and the other only in winter. These were defined by the Alacrans and other dangerous reefs. The landmarks relied on for arrival on the coast of Mexico were the high peaks of Orizaba and the hills of Saint Martin. These were noticed by Grijalva in the year 1519. Between September and April, when northers were likely to happen, ships kept further from the coast and went outside of the Alacrans, the Vermeja, the Triangle, and other banks and reefs of the coast of Yucatan.

Amongst the sailing directions quoted by Hakluyt from the Spanish authority was the following: "If, being near the Tortugas, you sound and find white sand very fine, you are east and west

with them, * * * but if black sand is brought up you are north and south with the Tortugas."

MENENDEZ, 1573.

When the Admiral Don Pedro Menendez was granted by the King the government of Cuba, a nephew, Pedro Menendez Marquez, was commissioned in the year 1573 to make a survey of the coasts of Florida. Barcia says that Marquez had on this occasion no cosmographer, and that no sea chart could be made; but he made such a description of the coast that "the chart could be constructed afterwards." In this way, doubtless, it was treated by the cosmographer, Don Juan Velasco.

It seems probably that what we call the Marquesas Keys take their designation from the navigator.

In the year 1579 order was given for a survey of the eastern coast of Florida, and that latitudes and distances should be registered. But the order was disregarded, as the President of the Council of the Indies left his place before the survey was commenced.

NEW MEXICO, 1581–'83.

In the year 1581 the Franciscan friar Augustine Ruiz set out from the valley of Saint Bartholomew, in Mexico, for exploration to the northward. With eight soldiers he reached the upper valley of the Rio Bravo, and that, since the time of Coronados, has been named the province of Tiguas, or Tiques. There, at a distance of 250 leagues from Santa Barbara, the soldiers left through fear of the Indians and made their way to Mexico. But Ruiz and the friar Francisco Lopez remained with the natives, who seemed to be friendly. Anxiety in regard to them induced the sending of another member of the order, Friar Bernardin Beltram, and he went out accompanied by some soldiers.

There was then a wealthy settler in the valley named Antonio Espejo. He was a man of great courage, offered to lead a northern expedition, and also meet the expenses, provided that certain advantages should be conceded to him. This was done. He gathered a company of soldiers, procured horses, mules, munitions, and victuals, and started from the valley on the 10th of November, 1582. He traveled along the course of the great Rio del Norte, passed many Indian tribes, and named the country New Mexico. On his route he was told that the Indians had killed the two friars, Ruiz and Lopez, and the natives mentioned also the passage of Narvaez through the region. West of the river they sought Acoma and Zuñi and were informed of the march of Coronado. Some Spaniards remained there after his time.

Espejo went further west, but most of his companions left the service, and returned by way of the Rio Bravo to Mexico. With those who remained he seems to have passed to the headwaters of the river, and then went eastward. They were in the Buffalo country in July, 1583. Finding a river running south they went in that direction 120 leagues, everywhere finding herds of cattle. They, no doubt, thus traversed the western part of the State of Texas.

Soon after these discoveries by Ruiz and Espejo, the military expedition of Oñate set out, and as a result the city of Santa Fé was settled. In a work printed at Madrid in 1586 it is plainly stated that the Rio Bravo empties into the Gulf of Mexico. But long after some European geographers represented that river as emptying into the Gulf of California.

Barcia relates that in the year 1592 a certain Friar Diego Perdonio returned to Mexico after traversing a great part of Florida, but the particulars of his journey are not known.

A Spaniard, Omaña, is mentioned by Barcia as having started from the Rio Bravo to go eastward, and that at a distance of 150 leagues he arrived at a river 1 league in breadth. This may have been the Red River or the Mississippi.

In the year 1613 there were English settlements on Chesapeake Bay, on ground then regarded by Spaniards as the eastern coast of Florida. To Spaniards the motions of the English seemed to be encroachments, and in consequence the attention of Spanish settlers was drawn to intermediate countries, in particular to the valley of the Mississippi and the valley of the Rio Bravo. Two enterprising captains, Joseph Triviño and Bernarbé de la Casas, offered to settle the lower

part of New Leon, as the region around the Rio Bravo was then called. As late as the middle of the eighteenth century that region included the greater part of Texas. Permission for the conquest was sought from the Marquis de Guadalcaçar, who was made Viceroy in the year 1612, but he would not give his consent, preferring to send all papers relating to the proposal for the decision of the King of Spain. Nothing is known of the result. Mention is made that in the year 1630 a Portuguese captain, Vincente Gonzales, sailed up a large river which emptied into the Gulf of Mexico. Some have supposed that it was the Mississippi, but the notice is so vague that no inference can be founded upon it.

During the Thirty-Years War, privateers and pirates had no restraint, and buccaneers flourished. In one port of Flanders alone could be counted, in the year 1634, not less than three hundred barks manned by pirates. Dutch, English, and French filibusters were chasing Spanish ships in all directions. In 1640 the buccaneer Pierre le Grand, from the Tortugas, with a band of twenty-eight desperadoes, attacked the ship of the Spanish Vice-Admiral of the Mexican fleet, and took all the treasure found in the vessel to France.

Some years earlier the Mexican fleet when passing through the Bahama channel was met by a heavy storm. Some of the vessels were wrecked on the coast of Florida; the Admiral's ship foundered, her papers were lost, and thus the affairs of Florida were brought into confusion. Only two of the ships escaped and finally reached Cadiz.

Early in January, 1656, Spanish galeons sailed from Havana with the Marques Monte Alegri, but by a furious gale were soon driven back and scattered in the Gulf. The flag-ship was lost, and the disaster was so notable that Don Diego Portiachuelo de Ribadeneira, a prebendary of Lima, wrote a history of it, which was printed at Madrid in the following year.

It is probable that a Spanish navigator in the year 1669 went up the Mississippi, and also up the Ohio, but there is no detailed record of the voyage. Mention is made in a general way of the voyage of an Englishman to the mouth of the Mississippi in the year 1670.

The Governor of Florida, Don Juan de Hita y Salaçar, seems to have given attention to the southern part of Florida and the keys, and probably was moved by the disastrous shipwrecks. To the council he represented the need of a survey of the dangers, and he proposed a mission for civilizing the Indians. The country to which he refers as that of the Cazique Carlos was the region about Charlotte Harbor, and he included the Florida Keys. As a result it is only known that one Franciscan missionary went over to the Indian provinces, by which is meant the coast opposite to the port of Havana.

ROBERT DE LA SALLE, 1682.

The Canadian Sieur Nicolet appears to have been the first who reached some tributary of the Mississippi. In the year 1639 it is believed that he was on the waters of the Wisconsin. Thirty years later the same river was found by the Jesuit father Allouez. But, amongst Frenchmen, Father Marquette and his companion, Sieur Jolliet, were the first who reached the main channel of the Mississippi. They passed out of the Wisconsin and into the waters of the main river on the 17th of June, 1673. Marquette and Jolliet had several conjectures in regard to the probable direction of the stream. By them it was deemed possible that it might end in Chesapeake Bay or some other estuary of the Atlantic. So also in the uncertainty, it might go westward into the Pacific, or pass southward into the Gulf of Mexico. They went south to the vicinity of the mouth of the Arkansas, and finding the course not changed, the conclusion was that it emptied into the Gulf. The party turned back on the 17th of July, 1673, and arrived in Canada at the end of summer. Father Marquette put on his maps "Conception River," but in his journal it is invariably written "Mississippi." The name is of Indian origin and was known under other forms, as "Mesi-sipi," "Metchisipi," &c. By the Indians it was made known to the French before it had been seen by the missionaries.

Robert de la Salle, when commanding Fort Frontenac, on the shore of Lake Ontario, was informed of the existence of the great river, and planned an expedition to complete the work of exploration as it had been left by Marquette and Jolliet. He intended to pass down the Mississippi to its mouth, take possession, and develop for his own and his country's benefit and glory

the resources of that central artery of North America. In May, 1678, he obtained a patent from the King of France "to endeavor to discover the western part of New France, through which it is probable a road might be found leading to Mexico." He was also authorized to erect such forts and habitations as might be needful for his purposes. At some point west of the Falls of Niagara he built a ship, and passed into Lake Michigan with provisions. A small fortification was erected, and another on the banks of the Illinois River, in order to secure his route on the return. After many difficulties he began the descent of the river in canoes on the 13th of January, 1682, with twenty-one Frenchmen and a number of Canadian Indians. Father Zenobe Membré, who was one of the party, wrote a report of the voyage, and Sieur Henri de Tonty, the most active associate of La Salle, subsequently became an energetic explorer in the same region. In the narratives of that time the Mississippi is mentioned as "Rivière Colbert," in honor of the prime minister of France, the patron of La Salle. Some of the contemporary accounts name the region through which the river flows "La Louisiane," in honor of the King of France. The expedition passed the months of the Ohio and the Missouri, and on the 12th of March was at the mouth of Arkansas River. Some Indian tribes were passed on the route, probably the same as had been mentioned in the report of De Soto. The mouth of the Red River is indicated erroneously, and no name is attached to the river.

On Easter Sunday (29th of March) the explorers arrived at the Delta of the Mississippi, and on the 6th of April reached the shores of the Gulf of Mexico. Three bands were then equipped to sound and explore the passes of the river. La Salle took the western side, M. de Tonti the middle channel, and Sieur Dautray the eastern pass. All the channels were found to be navigable, and were reported as being deep. The parties again united on the 9th of April, and with religious ceremonies "took possession" of the country. La Salle wished to explore east and west of the Delta, but want of provisions obliged him to return. He started northward on the 10th of April, and in September was again at the port on Lake Michigan. In the year 1685 he was again in France preparing an expedition for moving up the Mississippi. The issue of the adventure was unfortunate. Two years later, after having traversed the region watered by the great river, La Salle, in 1687, was killed by mutineers when he was endeavoring to get back to New France. The force which he led was ample. In four vessels he took two hundred and eighty persons—soldiers, workmen, and mechanics—with implements, provisions, and munitions for the establishment of a fort. On the 1st of August, 1684, the vessels sailed from Rochefort, and after passing into the Gulf of Mexico were apparently moved by chance towards the Delta. They passed far to the westward of the entrance, and at last anchored in Matagorda Bay. Excepting the commander, all were discouraged, and two of the vessels returned to France. La Salle remained with one vessel, and from a camp near the entrance of the bay made several excursions in hope of finding some branch of the Mississippi. By a series of mishaps his vessels were all destroyed, and he was thus deprived of the possibility of succor from the French colony at San Domingo, to which the intention was to have recourse in the event of disaster. Hence it was essential to reach the Mississippi by land in order to communicate with France by way of Canada. On the 22d of April, 1686, he set out on a northeastern course, probably to avoid the marshes and river mouths. Many streams were passed before he reached a place inhabited by Indians. The savages received the Frenchmen in a friendly manner, and promised favor to all of that nation.

Here La Salle fell dangerously ill, and was detained by fever during two months; and in that period much of the provision was consumed by his party. Some of his men deserted, others died. The commander was thus constrained to return to the fort, which he reached after an absence of six months, on the 17th of October, 1686. He again took the field on the 7th of January, 1687, leaving the fort in charge of the Sieur le Barbier, but at some point between the Brazos and Trinity River he was slain, as already related, on the 19th of March, 1687, by some reckless members of his party.

The French had been anticipated in this region. La Salle and his men found Spanish horses in common use amongst the Indians, and some of them were procured for the transportation of the baggage. Moreover, some of the Indians were in Spanish costume, and were possessed of iron tools and silver spoons. Some pictures of saints and papers were found amongst them, and a few Spanish words were in use, as "capita" for *commander*, and "cohavillo" for *horse*. The

Indians were much in fear of the Spaniards, and frequently mentioned that inroads had been made in their country from the northwest.

The conspirators who murdered La Salle resolved to settle in the country of the Cenis, but soon quarreled among themselves, and some of the ruffians were thus killed. The adherents of La Salle continued his intended exploration, and again set out in June, marching to the northeast. Amongst them were a brother and a nephew of La Salle. Several large rivers were crossed, and on the 27th of June they crossed what is, doubtless, Red River. At the end of July the mouth of the Arkansas was reached, and at the first French habitation the party embarked, on the 1st of August, to return to Canada. Few of the names given by La Salle and his French companions to rivers and places in Texas are now known in geography. One exception is that pertaining to the little river near his Fort Saint Louis, namely, "La Riviere des Bœnfs," which the Spaniards translated as "Rio de las Vacas," and which is at present known as *Lavaca River*.

In the summer of the year 1685, La Salle's friend, the Sieur Henri de Tonty, was notified from France that La Salle had sailed for the mouth of the Mississippi. De Tonty therefore embarked in the autumn of the same year for the south end of Lake Michigan, and left Fort Saint Louis on the 16th of February, 1686. He reached the Gulf, but finding no trace of La Salle, sent out two canoes to make search. One of these went westward towards the coast of Mexico, the other went eastward. Each made about thirty leagues and then stopped for want of fresh water. De Tonty noticed that the Gulf waters rose and fell "not more than two feet perpendicularly on the coast." He found also the cross with the arms of the King of France, which La Salle had set up in the year 1682. It had been displaced by floods, and was therefore removed and set at a point on higher ground about five leagues further up the stream. De Tonty addressed a letter to La Salle and left it in the care of some Indian chief at the Mississippi delta, and that letter was found fourteen years afterward in possession of the same Indians by the French officer Bienville.

De Tonty was a man of uncommon energy. After thorough search for La Salle in vain, he proposed to his companions to return to Canada by way of the coast of the Atlantic. The members of his party were unwilling to leave a known course, so turning back they kept along the Mississippi, and arrived at Montreal near the close of July, 1685. He introduced the name "*Red River*" in our geography, and says of it: "The Indians call this great river *Riviere Rouge*, because it deposits a sand which makes the water as red as blood." De Tonty states that he made a map of the Mississippi River, and that the map was sent to France, but nothing is known respecting it.

JUAN ENRIQUEZ BARROTO, 1685.

Information respecting La Salle's voyages was sent to Mexico by Don Andres de Ochoa y Carate, commander of the Spanish fleet in Gulf waters. He obtained the particulars by the capture of a French privateer on the coast of Yucatan. On receipt of the intelligence the Marques de la Laguna, Viceroy of Mexico, sent at the end of the year 1684 a pilot named Barroto to Havana, with order to the Governor of Cuba that without delay a vessel should be made ready for an expedition to the Gulf.

Barroto is recorded as "a distinguished mathematician, and a man of great experience in these waters." He was intrusted with the command and was instructed to sail to the bay of Apalache, and then to examine the coast for any settlement that La Salle might have established. He left Havana in January, and "registered" the bays and capes of the north coast, more particularly that part between Apalache Bay and the cape which he calls Cabo del Lodo [Cape of Mud]. He traversed also the Baia de Santa Maria, which is now known as Pensacola Harbor. But no settlement was found, nor any trace whatever of Europeans. Many hardships were encountered, and he was obliged to return to Vera Cruz. Barroto sent a narrative and chart to the Marques de la Laguna, who transmitted the documents to the King. The chart is not extant, but the report mentions the name Cabo de Lodo [Muddy Cape] as applied to the projecting spits and broken ground at the delta. That name appears on all Spanish charts of the eighteenth century.

At the end of the year 1686 another viceroy, Don Melchor Portocarrero, Count of Monclova, arrived in Mexico with a commission which authorized him to expel the French from the Gulf,

and to destroy their settlements. He reached Vera Cruz in September, 1686, and assembled a counsel of pilots and commanders, and by them the chart made by Barroto was inspected. The viceroy learned as the result that Barroto had not closely examined the coast, and that foreigners might be where Barroto had not been. Two armed vessels were prepared to expel the French, and, as was then usual on such occasions, two smaller vessels were fitted out to make preliminary search. These were intrusted to the command of Don Martin de Ribas and Don Pedro de Iriarte, but the chief pilot was Barroto.

The vessels sailed from Vera Cruz on the 1st of January, 1687, for the bay of Apalache, but violent storms and contrary winds in crossing the Gulf delayed the passage so that Apalache was not reached until the beginning of May. It seems probable that the experience of the pilot Barroto as a navigator alone saved the vessels from destruction. They finally entered a spacious bay and found two fathoms of water on the bar. The wrecks of two French ships were seen near the entrance.

La Salle was killed in March, 1687, but some of his party were then living at Fort Saint Louis. The survivors sailed for Havana because the winds were unfavorable for Vera Cruz, but to that port they turned after a stay of three days on the coast of Cuba. At Havana they had been given up as lost in the furious storms that prevailed in the spring of the year. The viceroy therefore hastened the departure of two armed vessels under the command of Don Andres de Pes and Don Francisco Gomarra. They had the distinguished pilot Luis Gomez Raposo, and examined the entire coast of the Gulf. On reaching Saint Bernardo or Saint Luis [Matagorda Bay] they also saw the remains of the two ships of La Salle's expedition. Having closed the examination, they arrived at Vera Cruz on the 14th of September, 1687. Barroto had already reached that port.

As successor to the Count de Monclova, the Conde de Galva arrived in Mexico and became Viceroy in the autumn of 1688. Soon after it was known to him that in the frontier settlement at the north, three Frenchmen had appeared who stated that other Frenchmen were yet alive in that region. Orders were given to search for the French. A year earlier Alonzo de Leon had erected a small fortification south of the Rio Bravo and named it in honor of the Viceroy "Fort Monclova." From thence, in January, 1689, he set out at the head of a party of horsemen and went north and northeast, accompanied by a geographer who was to take particular notice of discoveries. After a long march a lagoon was reached and was named San Bernardo. Fort Saint Louis had been abandoned. Eighteen pieces of cannon were found scattered on the ground and some dead bodies of the French invaders. The Indians said that five Frenchmen of the expedition were yet alive in the "Provincia de los Texas," which was a hundred leagues distant. This name appears to designate the country and a Indian tribe which La Salle named the "Cenis."

By Indian messengers Leon sent a letter to the five Frenchmen, and two of them came to him. In the month of May he presented them to the viceroy of Mexico, and to that official they made known the history of the expedition of La Salle, including mention of his settlement at Saint Bernard's Bay, his movement along the Mississippi and his ultimate fate.

To preserve the power of Spain the viceroy resolved that the Gulf coast should be settled; that the province of Texas should be provided with defenses, and that possession should be taken of the best naval position near the mouth of the Mississippi. For strengthening the armament at Pensacola, Andres de Pes was sent to Spain to make due representations at court. To favor settlements in Texas several small forts and missions were established in the year 1690, and Don Domingo Teran was appointed Governor of "the provinces of Coahuila and Texas." But this effort of the Spaniards to settle that country was unfortunate. Indians were numerous; the cattle died, and the crops failed. In the year 1693 only a few Spaniards remained in the province.

On the 25th of March, 1688, a Spanish force sailed from Vera Cruz. The war ship was secured in Mobile Bay, and the smaller vessel passed westward to the mouth of the Mississippi, which river was then known as Rio de la Paliçada. The earlier name "Rio del Espiritu Santo" was apparently then forgotten. The adventure was fruitless and the vessels were again at Vera Cruz on the 10th of May.

Under the orders of the viceroy, Andres de Pes went to Spain, and the King, pleased with his intelligent and patriotic exertions, named him Admiral of the Mexican Gulf fleet; and for

services already rendered conferred on him the habit of the order of St. Iago. He returned to Mexico in the year 1692 with the royal sanction for completely fortifying Pensacola.

In the following year (April 8, 1693) two Spanish vessels, under the direction of De Pes, entered Pensacola Bay, and the learned Professor Siquenza at once declared that it was the same harbor in which Pamfilo de Narvaez disembarked, and which Diego de Maldonado had discovered under the name of "Achusi" in De Soto's time. Pes and Siquenza examined all the shores and indentations in boats, and gave names to the points, capes, bays, and rivers. Many of the names appear on charts of the present day. At Mobile Bay the same navigators explored only near the entrance but did not enter the body of the bay. Keeping on westward they came, on the 1st of May, to a point which they named "San Miguel," and judging that there might be some passage towards the Mississippi they entered with boats, but found only broken ground. Through a narrow channel they entered a large lake, but beyond it could not pass into the river, and in consequence they returned to their ships. The name Punta de San Miguel on later Spanish charts is marked at the eastern entrance of Lake Borgne. De Pes was afterwards Governor of the Indian council, and one of the chief officers of the Spanish Admiralty. In the inscription on his monument he is styled "*Sinus Mexicani Scrutator.*"

De Soto's pilot, Maldonado, had reported Pensacola Bay (then called Saint Mary's) as being the most convenient place on the Gulf for a marine and military establishment, but no settlement was made there until the year 1696, when Don Andres de Arriola went from Vera Cruz and built a fort. But its position was commanded by higher ground, and there was no fresh water inside of the lines of fortification. However, no foreign enemy was to be feared, and the neighboring Indians only were kept in view. No fears seem to have been entertained respecting the French. The soldiers of Arriola understood from the Indians that they called the country around the bay "Pançaeola," which they said was the name of a nation that had been dispossessed by the present owners of the ground. Arriola is styled in the contemporary record "The first Governor of Pançacola."

IBERVILLE, 1698–'99.

Lemoyne d'Iberville was a Canadian gentleman; had shown resolution in opposing the English in Nova Scotia, Newfoundland, and Hudson's Bay. He had traversed immense tracts of land and water, and after expelling the English from Hudson's Bay he aimed at establishing French empire in North America, and deeming the control of the Mississippi essential he persuaded the French minister, Count Pontchartrain, after the peace with England in 1697, to attempt the occupation of the mouth of the great river.

Pontchartrain ordered the arming of two men of war at Rochefort, and gave the command to Iberville. One account states that Chateaumorand joined the expedition at San Domingo with the ship Le Francois. Iberville was accompanied by two of his brothers, namely, the Sieur Lemoyne Bienville and the Sieur Lemoyne Souvole, and both of them were distinguished in the history of discovery. The expedition sailed on the 17th of October, 1698, and made the passage into the Gulf of Mexico by way of San Domingo. It was accompanied by the French adventurer Laurent de Graff, or Grave, who had made himself formidable to the Spaniards under the name of "Lorencillo." He seems to have served as pilot and guide.

Iberville and Chateaumorand reached Pensacola on the 25th of December, and there to their disappointment found a Spanish fort. So keeping on westward they came to the entrance of Mobile Bay, and landed at Dauphine Island. Here were found skeletons of human beings, and some authors judge that they were the remains of the unfortunate followers of Narvaez in the year 1529. Passing on, Iberville took soundings and anchored near an island, which from that incident was then named "Ship Island." On the 11th of February a little bay was entered, and from an Indian tribe was named "la Baie de Biloxis." Soon after a river mouth was seen, and from another Indian tribe was named "Rivière des Pascagoulas." Having received from the natives information about a great river which they called "Malbouchia," Iberville and his brother Bienville set out on 27th of February from Ship Island in two boats for exploration, believing that the river indicated to them was the Mississippi. On the 2d of March they entered a large river with turbid waters. After tracing the course for 60 leagues they came to an Indian nation called "Ouma," and

found amongst them prayer-books in which the names of some of the Canadian companions of La Salle were written. The Indians had also, and delivered the letter which Tonti addressed to La Salle in the year 1685. On the 22d of March they arrived at a narrow and shallow branch of the river leading eastward. Two lakes were found and named Lac Maurepas and Lac Pontchartrain, and a few days afterwards Iberville was joined (March 31) by his brother Bienville at the ship station. On the 12th of April a little bay was entered and was named "La Baie de Saint Louis," but the water being shallow, it was decided to settle at Biloxi. A fort was built, and was manned by thirty-five of the followers of Sauvole and Bienville. Iberville on the 4th of May set sail for France, intending to bring an additional force for the settlement.

In the course of the summer of 1699 Sauvole and Bienville made excursions in the vicinity of the fort to gain the friendship of the natives. At the end of May, Bienville set out for Pascagoula River. Six feet of water was then found on the bar.

On the 9th of June a land journey was made to Mobile Bay, and the party passed on from thence to Pensacola Bay to observe the action of the Spaniards, who were then found to be established in their fort.

In July two missionaries and a number of Canadians arrived at Biloxi. When told by Indians of the new French settlement they descended the Mississippi in two canoes and thus joined with countrymen who had reached the same region by way of the Gulf of Mexico.

At a bend of the river, 28 leagues from from the sea, Bienville, to his great surprise, found an English vessel armed with twelve guns and commanded by a Captain Barr. When notified that he was an intruder the Englishman left, but threatened to return in the following year. This meeting was on the 15th of September and the place has since that date been called "le Detour aux Anglais," *i. e.*, the "English Bend."

On the 7th of December Iberville reached Biloxi after his visit to France, and with him came officers and passengers in the ships La Renommée and La Gironde.

Grants seem to have been conferred upon a Colonel Wood, of Virginia, who was there resident between 1654 and 1664; and again in the year 1678 a number of persons are said to have moved from New England for discoveries in New Mexico, but only casual mention can be found of these undertakings.

When the English settled in Carolina, they claimed all the territory westward to the Pacific Ocean. Charles I, of England, had granted by patent to Sir Robert Heath, then attorney-general, the undefined region. By him it was transferred to the Earl of Arundel. It is beyond doubt that English adventurers arrived on the lower Mississippi as early as the year 1699. Bienville, the Frenchman, states that on the 23d of April of that year he was informed by Pascagoula Indians that on the 21st of that month two Englishmen, with two hundred Chicasaws, had plundered and destroyed one of their villages. The narrative of Dr. Coxe mentions that he fitted out two vessels for exploration. These sailed from England in the year 1698, under the command of Captain Barr. One of the vessels had an armament of twenty-two guns, the other of twelve guns. In the summer of 1699 they were in the Gulf of Mexico, and had as pilot the French engineer Secon.

Captain Barr seems to have at first entered the bay east of the delta, and he calls it Nassau Bay, the same (says Daniel Coxe) "which the Spaniards designate as Spiritu Santo Bay." After passing the islands of Mississippi Sound, Barr entered Mobile Bay. This was probably near the close of the year 1699. On the homeward voyage one of Barr's vessels was wrecked on the coast of England and officers and men were lost; but the journal and a full account of the country along the coasts were saved.

All the bays, islands, and rivers denoted by Iberville and Bienville can be readily identified, as some of them yet bear the names attached by those explorers: as *Ship*, *Horn*, and *Cat* islands; also the Chandelear Islands, Saint Louis Bay, Biloxi Bay, and Pascagoula River, Iberville River, Lakes Maurepas and Pontchartrain, the Rigolets, and Bayon La Fourche.

In February, 1700, De Tonti again passed down the Mississippi to inspect the settlement at Iberville, as he had fifteen years earlier journeyed in behalf of such as may have been intended by La Salle. The enterprising traveler De Tonti died in the year 1704, at Mobile Bay. He had passed four times up and down the Mississippi. In August, 1706, the active Iberville died of yellow fever at Havana. In the year 1708 a French officer, M. Diron d'Artaguette, arrived from France to act

as commissary, and to decide on the policy of maintaining a port. Massacre Island was examined, the waters of the vicinity were sounded, and when in the year 1711 the settlement at Saint Louis was inundated, Bienville was directed to remove to a position 8 leagues farther down. The place selected was at the delta of Mobile River.

In September, 1712, the King of France conferred the management and commerce of the French colony, in Louisiana, upon an enterprising financier of great wealth, M. Crozat, and as was then common in governmental changes a new impulse was given for explorations. The action of Spain was at that time feeble. Fearing the French they had endeavored to expel them; but they dreaded also the English. This condition was changed after the grant of Louisiana to Crozat. France and Spain lost their common interest. Defense against encroachments by the English, and the grant to Crozat, to which the King of Spain had from the first been opposed, were in Spain regarded as acts of hostility. But Crozat inspired the French in Louisiana with a spirit of activity of which the Spaniards became jealous; and thus further expeditions and discoveries resulted from emulation between the two great powers which had then founded settlements on the shores of the Gulf of Mexico.

By royal decree Crozat had exclusive right during fifteen years to send products from Louisiana to France free of duty, and to introduce slaves from Africa. He was accorded the monopoly of all mines that might be found in the valley of the Mississippi; was allowed to have his own commissaries and directors for exploring and for making treaties with the Indians, and for guarding his own private interests. The King required merely the transportation needful and provisions for officers and soldiers assigned for defence.

The first vessel sent out under the grant arrived in Louisiana in the spring of the year 1713, with the Royal Governor De la Motte Cadillac and some commercial directors and agents appointed by Crozat. With large views that active man gave attention not only to the fur trade, but also to commerce and navigation through the Gulf of Mexico. His aim was to take merchandise from Louisiana to Pensacola, to Tampico, to Vera Cruz, to Tuspan, and to Havana. By his agents, trading journeys were made along the Mississippi and Red Rivers, and amongst them the most conspicuous traveler was St. Denis, who was well acquainted with the country. In the year 1714 he was sent to the southwest amongst the Spanish missions, then supposed to be in the province, and was authorized to make overtures to the Spanish settlers for intercourse and trade. Attended by a few Canadians and Indians, the energetic St. Denis entered Texas near the close of the year 1715, and stopped in the vicinity which had been occupied by La Salle's companions eighteen years earlier. He traversed the country, going southward and westward, and crossed the rivers, but found no traces of civilization short of the Rio Bravo. A few leagues westward of that river was the military post and mission of San Juan Bautista. St. Denis was received by the Spaniards with kindness. After some time he passed on to Mexico to seek an interview with the Viceroy, who cordially entertained proposals, but stipulated that St. Denis on his return through Texas should conduct some Spanish missionaries who were to settle at different stations on the road.

St. Denis left Mexico on the 26th of October, 1715, and crossed the territory of Texas by the route followed in his advance. His Spanish companions in passing made several little settlements amongst the Adays, the Assinays, and the Natchitoches in the vicinity of Red River.

On the 25th of August, 1716, St. Denis arrived at Mobile. Soon after other settlers and troops were sent to re-enforce the posts founded by him and to establish others. Merchandise was packed for trade with the Spaniards on the Rio Bravo, and on the 10th of October, 1716, the party of St. Denis again set out from Mobile for the journey to Mexico. After reaching Red River several missionary stations were visited. On the 21st of January, 1717, they were at a Spanish "presidio," which was garrisoned by seventeen soldiers. Beyond Trinity River they passed the Rio Brazos, and on the 8th of April the Rio Colorado, on the 11th of May the Rio San Marco, on the following day the Rio Guadalupe, and two days later they forded the Rio San Antonio. The four days following were occupied in traveling 27 leagues to the Nueces River, and on the 21st of April they arrived at the Rio del Norte. There the goods belonging to St. Denis were seized by the Spaniards. He went to Mexico to claim their restoration; but Don Baltasar, who had succeeded the Duke of Linares, put St. Denis in prison. He, however, escaped and

reached Mobile in March, 1719, and found there most of his companions. His expeditions rank high in value, and the routes which he took were carefully marked on maps of the Mexican Gulf countries. They appear on sheets which show the travels of Cabeça de Vaca, Moscoso, La Salle, Cavelier, and other resolute explorers, and from this time the geography of Texas may be regarded as settled.

SAINT JOSEPH'S BAY, 1718.

Crozat did not reap the advantages expected from his Louisiana grant; nor had he advanced the interests of the colony. He therefore (in 1717) renounced his privileges, and Louis XV, of France, accepted his resignation.

Then (August, 1717) the Western Company was formed, and, under the direction of the noted speculator Law, the company aimed at the control of the foreign and domestic commerce of France. The King granted to that corporation privileges more extensive than those which had been allowed to Crozat. They held under his letters patent for twenty-five years the right to all lands, coasts, ports, harbors, and islands pertaining to Louisiana, retaining for the Crown only fealty and homage. They were at liberty also to choose governors and officers for the command of troops. Within the period specified the company engaged to settle in the territory six thousand white persons and three thousand negroes; to make efforts for the salvation of the Indian savages and negroes; to build chapels and maintain religious teachers. Under this grant three ships arrived at Dauphine Island in February, 1719, bringing settlers, soldiers, and goods for commerce with colonists already settled on the Gulf shores. Lemoyne de Bienville, a man of influence, and popular in Louisiana, was nominated by the company as governor. He fitted out a party to move towards Saint Joseph's Bay, intending to make there a military post, as it was not far from Pensacola Bay. To Saint Joseph's, therefore, Bienville sent his brother with fifty soldiers in the year 1718. A fort was erected, and was left in command of M. de Gousy. But the Spaniards, in superior force, soon compelled the surrender of the place, and the fort was destroyed. The name, and a tolerable representation of Saint Joseph's Bay, appear on the maps of the French geographer De L'Isle. In August, 1717, a great storm inundated Dauphine Island and destroyed its harbor by masses of sand. This event necessitated a search for ship protection elsewhere. Bienville found at last, thirty leagues from the Gulf, a place on the Lower Mississippi, and in the year 1718 there built some houses and left men to clear the ground. On this site subsequently arose the city of New Orleans. It was so named in honor of the Bourbon Prince who was then regent of France. On the 19th of April, 1719, M. De Serigny arrived with notice that war had been declared between France and Spain. He brought a commission for exploring the coast of Louisiana in company with Bienville, and he was authorized to gain, if possible, possession of the Spanish fort at Pensacola, as it defended the only good port on the shores of the Gulf of Mexico. Pensacola was surprised by Bienville and Serigny in May, 1719, but in the following month it was retaken by a Spanish force from Havana. Somewhat later a French fleet, under M. de Champmeslin, captured the place; and thus in the course of six months Pensacola had changed masters three times.

In the year 1720 a French astronomer of distinction was sent to Louisiana. This was Father Laval, professor of mathematics at Toulon. His observations were published at Paris in 1728, and with them is included a plan of the harbor of Pensacola. Laval, in June, 1720, set up an observatory on Dauphin Island and observed for latitude. The result found was 37° 17′ 1″ for his place of observation, and he says that he drew the coast line of the entire Gulf 13 minutes further south than it had been represented by earlier map makers.

Laval made observations on the currents, tides, and winds of the Gulf, but his operations were interrupted by pestilence. The pious father, deeming that "science was only an accessory duty for a man of his profession," gave all his time to the care of his sick soldiers and sailors, and as soon as practicable he returned to France

GALVESTON BAY, 1721.

When the King of France ordered the movement against Pensacola he gave at the same time directions for pushing the French dominion to the southwest, indicating the "province of Lastekas" [Texas], of which the Spaniards had possession. The governor of the province, Don Martin D'Alarcone, had in fact by his policy increased the number of settlers.

St. Denis and Bernard de la Harpe had been sent to the French settlements at the north in the year 1719. This expedition of La Harpe was directed to New Mexico, but on his return in January, 1720, to New Orleans he found that the Western Company had issued an order for the immediate settlement of Saint Bernard's Bay, which after the time of La Salle had not been entered by any French officer. Mr. Belisle, in 1717, had been left there, and after many adventures had returned. He was now requested to go under command of La Harpe to take possession of the bay. A small vessel, the "*Subtile*," with twenty men, was assigned to La Harpe, and he was named commandant of the Bay of Saint Bernard. He was to proceed without delay and to take possession of the adjacent country in the name of the company and the King, and to build a fort. Spanish settlers were to be informed that the territory belonged to the King of France, in whose name Robert de la Salle had taken possession twenty-five years before. Intruders were to be driven out by force.

On the 16th of August, 1721, De la Harpe left Dauphin Island and sailed westward "for a hundred leagues or more." At all places where attempts were made to land the natives were hostile. He returned to Mobile and reached that place in the middle of October.

CHARLEVOIX, 1722.

In January the Jesuit father, Charlevoix arrived from Canada, and to him must be conceded a conspicuous place as an explorer and as the historian of early times in the northern region of the Gulf of Mexico. He visited all the French settlements there and gave to the world the first reliable description of the country. He passed down the Mississippi and at the month, in company with the French engineer Pauger, he sounded one of the passes. Subsequently Charlevoix was shipwrecked at the Florida Keys, but escaped in a small boat and with it arrived at the Spanish settlement at Saint Mark's. He then passed along the north coast of the Gulf to Louisiana, and finally returned to France.

The principal centers of activity for the Spaniards were Pensacola and Mexico. From these stations the northern and eastern parts of the Gulf coast were explored, and travels were made toward Texas. That territory was, however, relinquished by Europeans in the year 1694, with the exception of Spanish mission stations along the Rio Bravo. In the year 1714 French adventurers again appeared in Texas. If any movements were made for exploration in the interval of twenty years, the results are not known. France and Spain being at peace, travel followed the routes between Vera Cruz, the delta of the Mississippi, Mobile, Pensacola, and Havana.

The movements of St. Denis so aroused the Spaniards that they made alliance with the French discoverer, and sent Don Domingo Ramon with some soldiers and Franciscan missionaries to accompany Saint Denis toward the region watered by Red River. Several stations were chosen and provided with means for sustaining the missions. The province was then named by the Spaniards "*Las Nuevas Filipinas.*" The Marquis de Aguayo was the first royal governor, and he entered his province in the year 1716. Some years of peace were enjoyed, and for some time no expeditions, such as had been induced by wars in earlier times, were sent out. With the savage Apaches and Comanche Indians the Spanish contended in the interior; but for the same period there was no naval enterprise. The northwest parts of the Gulf coast were not explored until the end of the eighteenth century, and Humboldt says (in 1812) they were "as unknown as the coasts of Africa."

In the year 1703 Don Juan de Ayala, an active and intelligent Spanish officer, who was well acquainted with matters in Florida, suggested an expedition from Saint Augustine to the Gulf for the conquest of territory between that place and Pensacola. His proposal was laid before one of the most distinguished ministers of Spain, Don Alonzo Carnero, and it included the recommendation that some point on Appalachee Bay should be fortified. Ayala was appointed governor of Florida in 1718, and as no measures had been taken on his earlier suggestion, he then ordered an expedition to move from Saint Augustine toward the northeastern part of the Gulf, and directed also the structure of a fort. The command of the expedition was given to Don Joseph Primo de Ribera, "a soldier of great experience and courage," and he was furnished with all requisites for building a fort in the region inhabited by Indians at Appalachee. A vessel with provisions was sent from Saint Augustine to assist in the operations. Ribera set out by land on the 20th of February, 1718, and arrived at the head of the bay in advance of the ship. He immediately began the con-

struction of a fort, and named it Saint Mark's, but the party was soon in want of supplies, as the vessel did not arrive at the time expected. Some soldiers were therefore sent to Pensacola to ask aid from Don Juan Pedro Matamoras, and provisions were sent by that officer in a little coasting vessel. Meanwhile the ship of Ayala arrived at Saint Mark's.

Bienville (governor of Louisiana) had recalled his commander at Saint Joseph's Bay, as that station was desolate. The greater part of the garrison had previously deserted to the Spaniards, and the remnant reached Mobile in a little vessel on the 26th of July, 1718. The Spanish commander at Pensacola sent a few soldiers to take possession of the bay and build a fort. Roldan, who led that force, found the French defenses in ruin, but he promptly restored it and made a survey of the vicinity at the end of the year 1718. In the following year re-enforcements came from Mexico under Don Gregorio de Salinas, to construct fortifications upon a larger scale at Saint Joseph's Bay, and soon afterwards the coast of the peninsula from Pensacola to Saint Augustine was explored. Thence onward, in the course of time, parts of the Gulf coast were visited by English, French, and Spaniards, and local settlements were founded.

In the year 1846 the United States Coast Survey commenced geodetic operations in the Gulf of Mexico, and in subsequent years latitude, longitude, and the magnetic elements have been determined at many stations. Tides and currents have been observed, and the configuration of the Gulf bottom is now as well known as that of the surface of any part of the adjacent territory. The geological structure of the Florida Reefs and Keys was investigated by the late Professor Louis Agassiz, whose report on the subject is given in the printed annual report of the survey for the year 1851. In other volumes will be found in detail the mention of developments made in the progress of the work on land and afloat.

Titles of copies of maps illustrating Dr. Kohl's history of the discovery and exploration of the Gulf of Mexico.

No.	Name of map.	Year.
1	Cuba and vicinity, with part of the east coast of North America, from Juan de la Cosa	1500
2	The Antilles, from the map of the world in the edition of Ptolemaeus, Rome	1508
3	The Antilles and parts of America, from a map of the world, in Ptolemaeus	1513
4	The Island of Cuba and vicinity, from the Globus of J. Schoener, Frankfort	1520
5	A map of the Mexican Gulf, from a Spanish map of the year ——	1520
	[NOTE.—This is the first map on which the name "La Florida" appears.]	
6	A Spanish map of the Mexican Gulf of the year	1521
7	The Mexican Gulf, from the map of the world by Diego Ribero	1529
8	The Mexican Gulf, from a French map by Nicolas Vaillard de Dieppe	1547
	[NOTE.—This is the first map on which the name of the Tortugas appears.]	
9	Copy of part of a manuscript chart preserved in Oxford, England	155?
	[NOTE.—Dr. Kohl states that this chart, which he thinks was made a little after or before the year 1550, is principally remarkable as being the first which contains a name for the Mexican Gulf—"Golfo Mexigo." This name, however, does not appear upon the part of the map copied by Dr. Kohl.]	
10	The Mexican Gulf, after a French map	155?
11	From a map made by J. Bellerus	1554
12	From a French map of the year	1556
13	From a map of Diego Homem, in the British Museum	1558
14	From a manuscript atlas of Juan Martines	1578
15	From a manuscript of John Dee, in the British Museum	1580
	[NOTE.—Dr. Kohl remarks, referring to a legend on this map, "Canalis Bahama versus Septentrionem semper fluit," that this appears to be the first map on which any notice at all is taken of the Gulf Stream.]	
16	From De Bry's map	1594
17	Florida and Appalachee, from Wytfliet	1597
18	Florida, by Herrera	1600
19	La Florido, by H. Chiaves	1601

Titles of copies of maps illustrating Dr. Kohl's history of the discovery and exploration of the Gulf of Mexico—Continued.

No.	Name of map.	Year.
20	Golfo de Nueva España, by Laet	1633
21	La Floride Espagñole, by Sanson d'Abbeville	1656
22	From a manuscript map of North America by J. B. Louis Franquelin	1688
	[NOTE.—On this map, as Dr. Kohl observes, the passes of the Mississippi and its delta are for the first time represented as projecting with many branches and islands into the Gulf.]	
23	From "Carte de la Louisiane et du Cours du Mississippi," by G. de l'Isle	1719
	[NOTE.—This map, published by the celebrated French geographer and academician, De l'Isle, under the auspices of the French Academy, is to be considered as the first carefully prepared scientific map of the regions bordering on the Gulf.]	
24	Carte de la Louisiane par le Sieur D'Anville	1732
	Dressée en Mai, 1732; publiée en 1752	1752
	[NOTE.—Dr. Kohl observes that this valuable map may be taken as the embodiment of all the knowledge and information which the French had acquired of the coasts, bays, and rivers east and west of the Mississippi in the year 1732.]	
25	Partie de la Costa de la Louisiane, by N. Bellin	1744
26	The Coast of Louisiane, by N. Bellin	1744
27	Carte reduite des Costas de la Louisiane et de la Floride par le Sieur Bellin, Ingenieur de la Marine	1764
28	Part of Texas, by Don José de Escandon	1747
	[NOTE.—With regard to this map Dr. Kohl remarks that it is one of the first on which the name of Texas appears as the name of a province.]	
29	A map of Florida, from the latest authorities, by Jefferys, geographer to His Majesty	1763
30	Parte del Seno Mexicano; from a Spanish manuscript map of the year	1765
31	Map of Florida, by Jefferys	1769
32	Map of the eastern part of the Gulf of Mexico, by B. Romans	1774
33	Carta Esferica del Seno Mexicano construida en el Deposito Hydrografico de Marina par Don Juan de Langara	1799
34	The Gulf of Mexico, after Humboldt, by J. B. Poirson	1811
	[NOTE.—Dr. Kohl remarks that these two last-named maps (Nos. 33 and 34) were for a long time the basis of all the maps of the Gulf. Humboldt gives an explanation of his map in his political essay on New Spain, French quarto edition, vol. I, p. 52.]	
35	The descriptions of these two maps, as given by Dr. Kohl, do not correspond to the copies themselves in portfolio.	
36		
37	The Delta of the Mississippi, by le Sieur Divon	1725
38	The Mississippi Passes, by N. Bellin	1744
39	The Delta of the Mississippi, from a French Government map	1764
	Nos. 40 to 47 are sketches of the five principal harbors and bays of the Gulf of Mexico, as they are represented in the Spanish Portulano of 1818:	
40	Charlotte Harbor, by Romans	1774
41	Ponce de Leon Bay, by Romans	1774
42	Plan of the Bay of Pensacola, by N. Bellin	1774
43	Harbor of Pensacola	1818
44	Bay of Tampa	1818
45	Bay of Movila (Mobile)	1818
46	Bay of Galvez-Town	1818
47	Bay of S. Bernardo	1818
	[NOTE.—In addition to the maps above named, there is also on file in the archives a map compiled by Dr. Kohl, showing the progress of the discovery of the Gulf of Mexico, and indicating by colors the limits of the several explorers with the dates of their explorations.]	

ABSTRACT OF CONTENTS.

History of discovery and exploration on the Pacific coast of the United States.

California (1532).—Expedition sent out by Cortez, and commanded by Diego Hurtado Mendoza, for the exploration of the coast of California and islands adjacent.

California (1533–'34).—Second expedition fitted out by Cortes, and placed under command of Diego Becerra and Hernando de Grijalva.

California (1535–'36).—Expedition commanded by Cortes in person, reaches the coast of California. Lands at a port on the Gulf of California.

California (1539–'40).—Voyage of Ulloa to the Gulf of California under the general direction of Cortes. Other expeditions sent out by Mendoza, the successor of Cortes, under Coronado, Alarcon, Diaz, Cabrillo, and Ferrelo.

Sir Francis Drake (1579).—Reaches the Pacific coast in about latitude 48° on his voyage around the world. Sails southward along the coast in search of a harbor, and puts into "Drake's Bay."

Captain Thomas Cavendish (1587).—Makes a voyage to the Pacific, but reaches only the southern part of California.

Francisco Gali and Jayme Juan (1584).—The success of Sir Francis Drake induces the Spaniards to renew their northwestern explorations. Fleet fitted out by the archbishop and viceroy of Mexico to survey the northwestern coast of America. Voyage of Gali from the East Indies to the coast of California.

Sebastian Rodriguez Cermeñon (1595).—Accompanies an expedition to the California coast which results unfortunately, the vessel being wrecked in or near San Francisco Harbor.

Sebastian Vizcaino (1596–1603).—In the course of two voyages to California accomplishes a detailed reconnaissance of the coast as far north as Cape Mendocino.

New Mexico (1581–1611).—Explorations in New Mexico by Friar Augustin Ruiz, Antonio de Espejo, and by Juan de Oñate. Founding of Santa Fé.

Ferrer Moldonado and Juan de Fuca (1609–'25).—Reports of discoveries in the northwest and on the Pacific coast, not well authenticated.

Juan Iturbi, Francisco de Ortega and Estavan Carboneli (1632–'36).—Desultory expeditions to the California coast, contributing but little to the advance of geographical knowledge.

Don Luis Cestin de Canas, Don Pedro Porter y Casanata, Don Bernardo Bernal de Piñadiro, Don Isidoro de Atondo (1642–'85).—Various attempts to continue examinations of the coasts of the Gulf of California and of the ocean shore. Also to found settlements at points suitable for harbors for the Manilla galleons.

Jesuit missionaries (1697–1717).—Explorations and settlements under the direction of the Jesuit Fathers, Juan Maria Salvatierra and Francisco Kino.

Father Jean Ugarte (1721).—Detailed exploration and partial surveys of the shores of the Gulf of California.

Father Sigismundo Taraval, Father Fernando Consak, Father Wincesiaus Link (1732–'66).—Examinations of the Gulf of California and of the country adjacent continued by Jesuit missionaries until their expulsion from California in 1767.

Russian expeditions: Capt. Vietus Bering, Capt. Tschirikow, Lieutenant Synd, Captain Krinitzyn, Lieutenant Lewashoff (1728–'66).—Explorations in Bering's Strait and the waters in the vicinity; also of the Aleutian Islands. Occupation of the peninsula of Alaska; formation of trading establishments and of hunting stations.

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M. Chappe d'Auterache (1769).—Expedition under the auspices of the French Academy to California for the purpose of observing the Transit of Venus.

Franciscan Missions: Father Junipera Serra and others (1769–'74).—Establishment of mission stations by Franciscan friars at San Diego, San Buenaventura, and Monterey as bases for the gradual settlement of California by the Spaniards, and as centers from which exploring expeditions started to the northern parts of the country.

Sonora-San Diego (1775–'76).—Travels through the interior of California.

Father Francisco Garces, Don Juan Bautista de Anza, Don Bruno de Heceta, Don Juan Francisco de la Bodega, Don Juan de Ayala (1775).—Expedition from San Blas for the exploration of the northwest coast. First survey of the Bay of San Francisco. Highest latitude reached in fifty-eight degrees north.

San Francisco Bay (1775–'76).—'Ayala's report of San Francisco Bay as a "cluster of harbors," with his plans and surveys, leads to further explorations and to the founding of the Presidio mission.

Don Fernando de Rivera Moncada, Don Felipe Neve (1776–'77).—Conducts a land expedition from Monterey northward. Crosses the plains of San Bernardino. Mission of Santa Clara founded.

Don Ignacia Arteaga, Don Juan de la Bodega (1779).—Expedition to the northwest, organized by the Spanish Court and by the Viceroy of Mexico, reaches the latitude of Mount St. Elias.

Don Fernando Rivera, Father Junipera Serra (1777–'84).—Establishment of additional mission stations on the coast of California between San Diego and San Francisco.

Capt. James Cook (1778).—Voyage to the northwest coast of America; touches at various points between Cape Gregory (now Cape Arago) and Nootka Sound. Great impulse given to other expeditions, both private and public, by Cook's voyages.

François Galaup de la Pérouse (1786).—Voyage to the northwest coast of America. Examination and survey of the coast from near Cape Flattery southward to the 45th parallel.

Captains Hanna, Dixon, Portlock, Berkeley, and others (1785–'87).—Commercial, trading, and exploring expeditions to the northwest coast. Some of these sent out by an association of London merchants, named the Nootka Sound Company.

Capt. John Meares (1788).—Explorations on the northwest coast in the vicinity of Fuca Strait, Cape Flattery, and to the southward.

Don Estavan Martinez, Don Gonzalo Lopez de Haro (1788–'89).—Examinations of Nootka Sound and the surrounding country. Explorations in the Strait of Fuca.

Don Francisco Eliza, Don Salvador Fidalgo (1789).—Expedition sent to Nootka to take possession of the island for the King of Spain.

Don Manuel Quimper (1790).—Sails from Nootka Island, passes along the southwestern shore of Vancouver Island, and examines the Canal de Haro.

Malaspina, Don Francisco Eliza (1791).—Voyage from Acapulco as far north as the latitude of Mount St. Elias. Accurate determinations of many points in latitude and longitude. Don F. Eliza, commander at Nootka, explores the Strait of Fuca and Rosario Strait and enters the Gulf of Georgia.

Marchand (1791).—Makes a voyage, partly for trading purposes and partly for exploration, to the northwest coast. Passes along the coast from Sitka Sound southeastwardly, and examines points of land, ports, and bays on Queen Charlotte's Island and in its vicinity.

Vancouver (1792–'95).—Makes three voyages of exploration and discovery to the northwest coast of America. Explores Admiralty Inlet and its branches; enters the Columbia River, &c.

American explorers: Captains Gray, Kendrick, and Ingraham (1788–'93).—Voyages to the northwest coast. Explorations in the vicinity of Vancouver's Island, Gray's Harbor, the Columbia River, &c.

Galiano and Valdez (1792).—Command the last but one of the Spanish expeditions to the North Pacific. Reach the southern point of Vancouver's Island, pass round the island, repeating the movements of the English explorer, and at length join Vancouver's party in completing the survey of the Gulf of Georgia.

Caamaño (1792).—Voyage of exploration to the North Pacific ordered by the Viceroy of Mexico. Passes round Queen Charlotte's Island, and makes observation on the shores of the neighboring continent, but adds little to the stock of geographical information.

Capt. W. R. Broughton (1795–'98).—Arrives at Nootka in 1796, and ascertains that the Spaniards had delivered the port to the English. Then proceeds southward.

Lewis and Clarke (1804–'06).—Are commissioned by President Jefferson to explore the Upper Missouri and find a practicable route of water communication with the Pacific. Having ascended the Missouri to the mouth of the Yellowstone, they cross the Rocky Mountains and trace the Columbia River to the ocean.

Russian expeditions (1803–'06).—Two vessels under command of Captain Von Krusenstern sail from St. Petersburg. Explorations made in northern parts of Russian America. Other explorations to the southward.

Fur companies (1806–'21).—Explorations made and trading posts established by the Northwest Fur Company, and the Missouri, the Pacific, and the Hudson Bay Fur Companies. And, under the auspices of the British Government, explorations made by Franklin, Richardson, Parry, and others.

Russian settlements (1812–'41).—Trading post and agricultural settlement established on Bodega Bay by the Russian Fur Company. Occupation of the Farallones, and of some of the islands in Santa Barbara Channel.

Missionary travels.—Reference to limited extent of explorations from the mission stations in California. No boats or vessels being available, land excursions were made yearly.

Capt. F. W. Beechy (1826–'27).—On returning from a voyage to Bering Strait, enters San Francisco Bay and completes a survey of the port. Makes a similar survey at Monterey Bay.

Sir Edward Belcher (1836–'42).—Commands an expedition to the Pacific coast organized by the Lords of the Admiralty, and extends surveying operations twice along that coast from Mount St. Elias to Cape San Lucas, including a survey of Columbia River to Fort Vancouver.

French explorations (1820–'42).—Reference to the resumption of French explorations on the Pacific coast; voyages of Du Petit Thouars (1837), La Place (1839), and Rosamel (1840); also to the diplomatic mission and journeys of M. Duflot de Mofras (1840–'42).

United States expeditions (1820–'47).—Travels and explorations in the far west by Long, Ashley, Smith, Bonneville, and others. Expedition under the command of William A. Slacum, U. S. N., explores the Columbia River. Map of the coast and country south of the mouth of that river compiled.

United States exploring expedition: Lieut. Charles Wilkes (1838–'41).—Fitting out of an expedition for exploring the South Sea and determining the position of Pacific islands, authorized by act of Congress. Sails in August, 1838, and arrives at Columbia River entrance in April, 1841. Makes examinations and surveys of the lower reaches of the Columbia River, of Gray's Harbor, the Strait of Fuca, Admiralty Inlet, and the Haro Archipelago; also of the Bay of San Francisco and Sacramento River.

Oregon and California.—Capt. J. C. Fremont (1842–'46).—Captain Fremont commands three expeditions through the interior of the continent. Is instructed by the Bureau of Topographical Engineers, on his second expedition, to connect his reconnaissance of 1842 with the surveys of Commander Wilkes on the Pacific coast. Carries a line of astronomical observations across the continent, reaching the Pacific coast on the northern shore of the Bay of Monterey. His map of Oregon and Upper California is published by the Senate in 1848.

Maj. W. H. Emory, United States Topographical Engineers (1846–'47).—Commands an expedition which starts from Fort Leavenworth, Kans., in 1846, and determines in geographical position one hundred and twenty stations between his point of departure and San Diego, Cal. Traces the southern boundary line of the United States, and fixes the initial point on the Pacific coast.

United States Coast Survey (1848).—Preliminary arrangements made for beginning the survey of the Pacific coast. General reconnaissance, triangulation, astronomical observations, and hydrographic work provided for.

INTRODUCTION.

In September, 1513, Balboa, from the heights of Panama, discovered the Pacific Ocean; and in 1520, Magellan, sailing through the strait that bears his name, saw the same ocean at a more southern point. The record of these resolute men closes abruptly. Balboa was beheaded in 1514 by order of Pedro Arias de Avila, and Magellan was killed in a contest with savages at the Philippine Islands.

The immediate successors of the navigators just named occupied themselves more particularly with the western coast of South America, where they found the empire of Peru, supposed to be rich in gold, and no one thought of advancing northward until 1532, when Cortes turned attention to the northwest.

Thus for a period of forty years (1492–1532), during which the eastern and western coasts of South America had been circumnavigated, and imperfectly laid down on maps, and the eastern shore of North America explored by Spaniards, by English, and by the French, and the River St. Lawrence traced inland to a distance of 600 miles, one quarter of the coast remained unknown to Europeans. Large scope was left for the speculations of cosmographers and their views were wild and various. Some supposed that no continent existed, and that the lands found, as Florida, New France, Labrador, Greenland, &c., were only the extremities of large islands. As such they are represented on early maps. But, most men then living believed that North America was a large peninsula connected with Asia. Columbus himself so thought at one time. The land was supposed to stretch over into Asia from that part of Central America which was made known by Balboa and his successors, and by the first expeditions of Cortes; while Mexico, China, and Thibet, were represented as neighboring States. The Tartar nomads, with their herds of cattle, were supposed to wander in what we now call "The Buffalo Country," and the Empire of Japan was judged to be where California actually is. But, step by step, such notions gave place to views nearer the truth. In the course of two centuries, Japan, China, and the nomadic Tartars were gradually referred into place, and the great Pacific expanse between Asia and America widened to something like true proportion.

The prevailing notions of the time had great practical influence. Cortes and Mendoza sailed by charts erroneously constructed, just as Columbus had been guided by a map of the Italian, Toscanelli, when he discovered America. Expeditions intended for discovery along the northwestern coast were instituted merely because Japan and China were supposed to be in that neighborhood.

1532–1579.

In his third letter to the Emperor Charles V, Cortes states that Montezuma informed him that an ocean existed west of Mexico. Of the explorers sent out by the Spanish commander, some reached the Pacific in the neighborhood of Acapulco, at a point about 10 degrees northwest of the summit from which Balboa saw the ocean. Others went further in that direction to explore and conquer the kingdom of Mechoacan and Colima. The last brought back intelligence respecting an island rich in pearls and gold and inhabited only by a race of Amazons. The Indians of Mechoacan asserted that some of their tribe had visited the island and that it lay at a distance of ten days sail from Colima. Cortes relates this in his fourth letter to the Emperor, dated October 15, 1534; and it was probably the first notice received in Spain concerning California.

Cortes hoped to find a strait supposed to exist somewhere south of Yucatan, and in that direction he sent Captain Pedro Alvarado, who reached Guatemala in 1545. Thither were dispatched the first ships built by his order on the Pacific coast, and when he marched to Honduras it was to the same quarter that the steps of Cortes were turned. When of necessity his purposes in that direction were abandoned, active attention was turned to the northwest, but probably one reason for the change turned upon the fact that Nuño de Guzman, in 1530, conducted an expedition along the Saint Iago River, with a view of conquering the kingdom of Mechoacan.

The river then known as the Saint Iago is the largest in Mexico. It runs in a northwestern direction, and empties into the Pacific not far from the entrance of the Gulf of California, and this may be considered as the earliest embarkation of Spaniards for the northwest. Guzman was the

first who saw the coast opposite to the rocky peninsula of California. In his report to the Emperor he mentions a people said to be living at the west in a country surrounded by the ocean, and this intelligence, confirming previous rumors, probably gave rise to the maritime expeditions sent thither by Cortes two years afterwards.

CALIFORNIA, 1532.

The first expedition to that region was unfortunate and produced no result. It was commanded by Diego Hurtado Mendoza, a relative of Cortes, who with two ships sailed from Acapulco on the 30th of June, 1532. He was instructed to proceed northwest, explore the western coast of New Spain, and to discover, if possible, those "islands of the ocean," rich in pearls, and inhabited by Amazons, of which Cortes had been informed. This voyage may therefore be considered as the first Californian expedition, though it is doubtful whether Mendoza ever reached that country. But, pursuing the course indicated, he discovered several harbors, and the islands "las tres Marias," in latitude 27° 02′ N. When his provisions were much reduced his crew revolted, and he sent back one of his vessels with the sick and discontented. Nothing more is known of this unfortunate chief or of his companions. The returning ship was wrecked on its passage, and the few who survived that disaster were imprisoned by Nuño de Guzman, who was then governor of the northwestern coast of New Spain and the implacable enemy and rival of Cortes. The report of these misfortunes was all the information received by Cortes relative to the hapless experiment. Navarrete, in his introduction to the work entitled "Relacion del viage hecho par las Goletas, Sutil y Mexicana en el año de 1792. Madrid, 1802, page 11 et seq.," gives some particulars of this voyage.

CALIFORNIA, 1533–'34.

When Cortes heard of the loss of his vessels he resolved on a second attempt; and hastened to the harbor of Tehuantepec to hasten the outfit of the *Conception* and *San Lazaro*, which vessels he placed in charge of Diego Becerra and Hernando de Grijalva, with directions to pursue the course indicated for their predecessors; and at the same time to make diligent search for the missing captain Mendoza.

On the 30th of October, 1533, the two vessels sailed, but were separated by a storm on the second night of their voyage. Grijalva in the San Lazaro, anxious to rejoin his Chief Becerra, sought him in various directions. He went southward to 13° north latitude; and more than 100 leagues west of the coast of New Spain, an island was discovered and named Santo Tomas. One north of it he named Los Inocentes. These are now known as the *Revilla Gigedo Islands.*

Finding no trace of his commander, Grijalva returned, and was subsequently employed by Cortes in exploring other parts of the coast of New Spain. Meanwhile, Becerra, the chief of the expedition, seems to have pursued his course to the northwest, but not far. While yet on the coast of New Spain, he was murdered by his crew, who joined in a conspiracy against him under the chief pilot Fortun Ximenez. The pilot assumed command, reached the coast near the harbor now called La Paz, and as far as known was the first European who set foot on that soil. Soon after he was attacked by the natives and himself and twenty-two of his men were killed. The rest of the crew returned to New Spain, and at Xalisco were captured by Guzman and robbed. Little is known with certainty of the proceedings of Becerra and his pilot Ximenez. It is difficult to fix exactly the date of arrival of the first European vessel on the coast of California.

CALIFORNIA, 1535'–36.

The land reached by Fortun Ximenez was supposed by Cortes to be situated between Mexico and the Moluccas, and possibly in the neighborhood of the celebrated Spice Islands. Full of expectation, and desirous of searching again for his missing relative (Diego Hurtado) a new enterprise was planned, and Cortes determined to command it in person.

In hope of finding another country like Mexico, and also to be prepared against his hostile neighbor, Guzman, a force equal to that with which he had conquered Mexico was assembled by Cortes. The whole consisted of not less than four hundred Spaniards and three hundred negroes. This statement is cited by Navarrete from an old manuscript, and is given in his work at page 17.

On the point of embarkation a difficulty arose, that seems not to have been foreseen either by Cortes or his companions. The three vessels, namely, the Santa Aguida, San Lazaro, and Santo Thomas proved barely sufficient for the transportation of a third part of the company, encumbered as it of necessity was, with horses, canoes, implements, and provisions needful for war and for the settlement of a colony. Cortes, however, set sail from the harbor of Chiametlan on the 15th of April, 1535, bound for the place where the pilot Ximenez and his crew had been slain. Without difficulty the situation was identified.

On the 1st of May Cortes saw the mountains of California, and named them Las Sierras de San Felipe, and also an island, which he named Santiago. Two days after the party reached the desired haven, where the remains of the unfortunate Ximenes were still to be seen. The bay in which this port was situated they named Baia de Santa Cruz. In after years it was sometimes called the Bay of Cortes, and also the Bay of California. This last name, from whence derived we know not, was finally applied to the whole country.*

These few names, facts, and dates contain all the reliable information we have bearing upon the history of discovery. The remaining records of the expedition mention only shipwreck and disaster. It cannot be asserted that Cortes discovered any part of the coast north of the bay above mentioned; nor is it known how far north he went into the Californian gulf. He did not succeed in transporting the rest of his army and stores to California, though he made several attempts, and in person he at once returned to New Spain for that purpose. The ships dispatched by him generally failed to reach their destination; one with provisions arrived near the coast, and was beaten back to the disappointment of the men left on the peninsula, who suffered from hunger and disease, while the army marched hundreds of miles along the shore looking in vain for the lost vessels.

Cortes, ever active, encountered manifold perils and misfortunes on the gulf, which in his time was called the "Sea of Cortes," but was able to transport only a small supply of provisions from the coast of Mexico to relieve his famishing soldiers at the Bay of the Holy Cross. In the midst of these difficulties he was summoned to Mexico. The arrival of his successor, the Viceroy Don Antonio de Mendoza, and other affairs of importance made his return desirable; but unwilling to relinquish his Californian enterprise, and contemplating another expedition, Cortes left a small force under the command of Francisco Ulloa.

Meanwhile a report was circulated in Mexico that Cortes had been lost at sea on one of his voyages, and great anxiety was expressed for his safety. This, and a threatened insurrection of the Mexican Indians, induced the Viceroy, Mendoza, to send a vessel in search; and Donna Juana de Zuñiga, the wife of Cortes, in her extreme solicitude, dispatched ships for the same purpose. These were all met by the returning chieftain, who early in 1536 entered the harbor of Acapulco at the head of a fleet of six ships.

CALIFORNIA, 1539–'40.

Cortes, on his return to Mexico, found much to do. After settling his affairs with the new Viceroy, he was called upon to assist the Spaniards in Peru, who were then menaced by a general revolt of the Indians. The little force left at the Bay of Santa Cruz under the command of Francisco de Ulloa was in consequence withdrawn.

The decree which removed Cortes from the viceroyalty, constituted him "Admiral of the Pacific," with command of all the ports and naval force, and reserved to him the special right of discovery and conquest. Thus endowed for the prosecution of his purposes, he delegated the command to Ulloa, and on the 8th of July that officer sailed from Acapulco on what proved to be, as far as regards geographical discovery, the most important and successful of all the expeditions of Cortes.

A complete report of the voyage of Ulloa, written by Francisco Preciado, one of his pilots, was printed by Ramusio. Hakluyt translated it into English and inserted it in his "Third and last volume of the voyages, navigations, and discoveries of the English nation. London, 1600."

Ulloa coasted along the shores of Mexico, Sinaloa, and Sonora, and supposing the newly found

*Venegas Noticia de la California. Madrid, 1757.

California to be an island, sailed up the broad passage (Gulf of California), expecting to reach China or some other part of "India Superior," under which name was then comprehended the northeastern part of Asia. But to his disappointment he found fresh water at the head of the gulf, and the country around the Rio Colorado being then a low sandy plain, it was not easy to decide where the waters of the sea ended or those of the river began, or even to discern between land and water in the distance. From a small sand hill he could see only the river and an uninviting stretch of land, although some of the party were of the opinion that a narrow outlet could be traced leading to a sea beyond. The report of Ulloa left in doubt the real nature of the peninsula. Sir Francis Drake, in 1577, regarded it as an island.

From the head of the gulf, Ulloa coasted the eastern side of the peninsula of Lower California, and carefully examined each indentation, hoping to find a passage. At Cape San Lucas he turned to the west and examined the opposite shore. With adverse winds and currents he struggled northward and nearly reached the 28th parallel of latitude. Occasionally he landed; had encounters with the savages, and tried to convert his captives by baptism, and with ceremonies then customary he took possession of the region in the name of the King of Spain. In the course of the winter of 1539–'40, three attempts were made to advance northward and westward, but the vessels were always beaten back to the starting point. The most distant cape seen by the party was named by them Cabo Engaño (Cape Deceit), which is believed to have been a point or object visible near the 30th parallel of north latitude.

Engaño

So much sickness prevailed amongst the companions of Ulloa that he was constrained at the end of March, 1540, to send back one of the vessels, the Santa Agueda, to Mexico with the invalids. That ship arrived without mishap at Acapulco with a report of the discoveries.

After repairing the Trinidad, which was the least damaged of his vessels, Ulloa remained on Cedros Island, intending to start from thence on a northwestern course, "convinced (he says) that this direction must bring him to something good and great"! His ultimate fate is unknown.

Cortes (the distinguished patron of Ulloa), who had manifested on these expeditions such energy, and spent large sums of money out of his private fortune, was destined to pursue them no further. He never returned to America after his departure for Spain in 1539.

The Viceroy, Mendoza, was thus left without a competitor in the broad field of adventure. Governor of Mexico and Admiral of the Pacific, he availed himself of his powerful position to become a promoter of the most important discoveries of the sixteenth century. Circumstanees combined to induce Mendoza to pursue explorations in the course opened by Cortes. It was not, in his time, certain that the Gulf of California was closed at the north, and there was a lingering hope that it might afford a passage to China. That the nature of this gulf "should be brought thoroughly to light" was therefore an early subject of Mendoza's attention.

Some land travelers had reached the northwest and returned with accounts of the riches and advantages of the country. Of these the most noteworthy were Alvar Nuñez Cabeça de Vaca and the monk Marcos de Niza.

De Vaca, an officer in the unfortunate expedition which sailed from Xagua on the 20th of February, 1528, under Narvaez, had, in the course of nearly ten years, traversed the Gulf coast between Florida, from whence he set out, and some point west of the Delta of the Mississippi, and after roaming over mountains and plains had reached the shores of the Pacific in the year 1537.

Attracted by the relation of what De Vaca had seen in his wanderings and encouraged by Mendoza, the Franciscan monk, Marcos de Niza, in company with one of the companions of De Vaca, started on foot in March, 1538, for further explorations. But, even with the aid of his journal, the route traveled cannot be certainly made out, nor the localities identified that are in his report made the subject of romance and exaggeration. He asserted that he had been north of Mexico and that he had crossed a rich country and an empire called "Cibola," the metropolis of which was as large and brilliant as the city of Mexico. Before an altar erected in a lonely forest he secretly with some ceremony "took possession" of this empire and called it the "New Kingdom of San Francisco."

Niza moreover declared that he had discovered in the heart of the new world the fabulous "seven cities," so often sought in vain by the ancients amongst the islands of the Atlantic. Nothing was too improbable for the excited imaginations of his countrymen. They at once laid down

on maps, side by side, the famous kingdom of Cibola and the fabulous seven cities. Palaces roofed with silver and temples glittering with gold were items which adorned the descriptions in common discourse. After the return of the monk to Mexico, Venegas says (Noticia, pp. 163, 164) "Everybody in this city spoke of nothing but Cibola and the seven cities, and pretended that all the best things and the greatest riches of the world were to be found there."

The Governor of Guatimala, Don Pedro Alvarado, as well as the Viceroy of Mexico, now began to prepare new expeditions for this field of research. Captain Burney in his History of Discovery in the South Sea; London, 1803, vol. 1, page 193, says that the return of the monk Niza and his exciting narration stirred up Cortes and gave rise also to the expedition of Ulloa, which he therefore relates after Niza's report. This is doubtless a mistake. Niza left Culiacan in March, 1539 (the date given by Burney on page 189), and after wandering a year at the north he could not have returned to Mexico before the beginning of 1540. Ulloa sailed early in July, 1539, and so Captain Burney states on page 194. His voyage, therefore, should have been recounted before that of Niza, and cannot be reasonably considered as a consequence of that expedition. The same error has been repeated by subsequent writers.

Alvarado collected a fleet, and made an agreement with Mendoza to combine their forces for discovery and conquest in the northwest. The armament was to be under the command of Alvarado, but the sudden death of that officer in 1541 stopped the undertaking, and the fleet was dispersed.

Mendoza had meanwhile completed the array of a military force designed to follow the track of the monk Niza and conquer the kingdom of Cibola, and to "explore the secrets" of the Gulf of California. This expedition consisted of two divisions, one to proceed by land the other by sea. Francisco Vasquez de Coronado, Governor of the northwestern province of New Galicia, was placed at the head of the former, with orders to march through Sinaloa and Sonora, while Hernando de Alarcon, in command of the marine force, should sail along the shores. Both companies set out at the same time in the spring of 1540, and their departure was coincident with the return of Ulloa's men from the west.

Alarcon, who sailed from Acapulco on the 9th of May with the ships San Pedro and Santa Catalina, completed and extended the discoveries made by Ulloa at the north of the Gulf of California. "Because [he writes to Mendoza] your highness has commanded me to bring you, at all events, the mystery of this gulf, I determined not to leave until I had thoroughly explored the innermost recesses of its waters." He therefore entered the river which Ulloa had only seen afar off, and sailed up its stream in boats for fifteen days, always hoping to find the rich "kingdom of Cibola" and to meet Coronado, with whom he was to co-operate.

Disappointed in both of his objects, Alarcon returned to his ships, which lay at the mouth of the Sacramento, after having traversed 85 leagues of the course of the river with great difficulty. Near the entrance he erected a chapel in honor of the "Señora de la buena Guia" (our lady of the Good Guide), and called the country "La Campaña de la Cruz."

Alarcon discovered also the mouth of the river Gila, a great branch of the Colorado, and named it Brazo de Miraflores. He remarks that the "men of the marques," alluding to Francisco de Ulloa, were mistaken in fixing the latitude of the head of the Californian gulf, placing it 2 degrees too far north, and that he had himself been 4 degrees further in that direction than any who preceded him. At the end of the year 1540 Alarcon returned to Mexico.

Coronado was meanwhile engaged in his land journey. Until the year 1838 nothing had been published concerning his expedition, excepting the short report in Ramusio's Vol. III, and occasional allusions to it in Herrera and Gomara. At that time, however, M. Ternaux Compans gave to the public a full account, written by Pedro de Castaneda de Nagera, one of the companions of Coronado.

In April, 1540, Coronado set out from Culiacan, then the most northern Spanish town in Mexico, and the depot of land expeditions, as Acapulco was for those by sea. His army consisted of above six hundred Spaniards and many Indians, besides a number of enterprising young noblemen, the flower of Spanish chivalry in Mexico. The array is mentioned by old writers as one of the most complete and brilliant of the time.

With this imposing retinue Coronado took his course through the country east of the Cali-

fornian gulf. At a considerable river, which they called Rio Tizon, they turned towards its head "and traversed promising countries and some deserts." The route of the army can be approximately traced. It is evident that the course was in the vicinity of the Gila and across the valley of the Rio Bravo towards the plains east of the Rocky Mountains. The buffalo hunts, the geographical features of the plains of the Upper Arkansas and Red Rivers, their extent and barren nature, even the long deep crevices into which the buffaloes as well as the horses of Coronado sometimes fell headlong, are so minutely described by Castaneda, that there can be no doubt in regard to the region crossed by this party.

Castaneda observes that the rivers which they saw probably emptied into the great river Espiritu Santo, discovered by De Soto; that is, into the Mississippi. Early in April, 1543, the army retraced its course, and reached Mexico at the end of the summer.

"Our enterprise" says Castaneda, "took a wrong course. We looked for Quivira on the desert plains of the northeast, but the rich Quivira or Great India lies toward the northwest. This is now quite clear from the sea expedition of Villalobos, who examined the coast of the Pacific and found Great India in that direction."

Some early writers mention Quivira as bounded by the Pacific, and assert that Coronado's company saw strange ships having on their prows images of birds wrought in gold and silver, and laden with merchandise supposed to have been brought from China. Castaneda says that the vessels so ornamented were only canoes, and that he was so informed by the Indians who assured him that they were common on a certain river in the interior. Gomara erroneously judged that the water mentioned might be the western ocean, and from that time "Quivira" was marked on nearly all contemporaneous maps in the position occupied by San Francisco Bay. On some maps it is marked as being north of that bay.

Cabrillo, sailing along the coast in the autum, of 1542, was repeatedly told by the savages that other Spaniards were traveling in the interior, and with these he tried to put himself in communication. He heard of them for the last time at Juan de Capistrano. It was reasonable to suppose that the party were Coronado and his followers. Castaneda says that the Knight Melchoir Diaz, with a number of men, penetrated beyond the Colorado River. According to that writer, Diaz was left by Coronado in charge of a fortified station on the route, but full of the spirit of adventure he delegated the command of the quiet station, and set off at the head of twenty-five chosen men for exploration towards the coast. After reaching the Rio Tizon he traveled along the southern bank. Indians told him of the ships of Alarcon, and showed him the place of embarkation, where Diaz found a tree with the inscription: "Alarcon came as far as this place; there are letters underneath." From the letters Diaz learned that the sea of Cortes was an inclosed gulf, and that Alarcon, after some time waiting the arrival of Coronado, had returned to Mexico.

The Knight Melchoir Diaz crossed the Colorado on rafts constructed with the help of Indians, and struck into the interior of what is now known as the Colorado Desert. How far the party advanced before reaching that desolate region is not known. They describe it as being "covered with hot ashes that seemed here and there to boil in fierce agitation." The ground trembled under their feet, and the aspect of the place was forbidding. They found no water and turned for the starting-point. On the route Diaz was killed by an unfortunate accident.

Expeditions to the sea of Cortes were no longer thought of. Ulloa as well as Alarcon had reported it landlocked; no doubt remained, and it is represented as a gulf on all the charts of the sixteenth century.

The next party sent out by Mendoza proceeded therefore to the outside of the peninsula.

Two vessels, the San Salvador and La Victoria, under command of the Portuguese pilot Juan Rodriguez Cabrillo, left the port of Navidad, Mexico, on the 27th of June, 1542, and sailed along the coast as far as it had been previously explored by Ulloa; that is, to the Isle of Cedros and Cabo Engano where they arrived on the 20th of August. From thence, advancing more successfully than their predecessors, against adverse winds and currents, Cabrillo reached higher latitudes. At 34° north he saw not far from the coast an inconsiderable group of desert islands (unas islas desiertas), and near them a harbor, which he called Puerto de San Miguel. The islands are now known as "The Coronados," and the port was doubtless San Diego. The latitudes assigned by the Spaniard

for these places are not correct, but in every instance (excepting at Cape San Lucas) the latitudes of Cabrillo are in error about a degree and a half.

On the 7th of October Cabrillo saw two islands, which he named after his vessels San Salvador and La Victoria. They are now called San Clemente and Santa Catalina. Beyond these he entered a bay to which he gave the name of Baia de Fumos, perhaps the same that is now known as San Pedro Bay, and passing several other islands on the way, he sailed through what is at present designated the Santa Barbara Channel; Point Conception was named by him Cabo de Galera, and was placed more than a degree and a half too far northward. Stormy weather delayed progress, and at length drove him some distance southward, where he discovered an island which he named San Lucas. The island is now called San Bernardo. A harbor eastward of the cape gave his party shelter, and received the appellation of Todos Santos (San Luis Obispo), and another, that of Puerto de las Sardinas, which is perhaps the place now known as San Simeon. Cabrillo finally doubled the cape and along the coast made careful search, says Herrera, "for the Rio de Nuestra Señora, which, however, they could not find."

At 37½° north latitude, according to Cabrillo, a range of lofty mountains was in view, probably the Californian coast range, named by him Sierra de Saint Martin. On the 17th of November the voyagers entered a bay, supposed to be the Bay of Monterey. They called it Bahia de los Pinos. In latitude 38° 40′ of their reckoning (about 37° north in reality) they saw a projecting spit of land, to which they gave the name Cabo de la Nieve—the snow cape. That cape is supposed to be Punta año Nuevo.

In a storm which separated the two ships for several days Cabrillo was carried considerably northward, and saw, at a distance, another cape (probably Point Arena), and that was the highest latitude attained by the party. Sickness, conjoined with cold and stormy weather, induced him to return as far south as the island of San Lucas (San Bernardo), where he had found a tolerably good harbor. This he reached on the 23d of November, 1542, but Cabrillo soon after fell sick. He died on the 3d of January, 1543, leaving the command of the expedition to his first pilot Bartolomé Ferrelo, or Ferrer.

Ferrelo and his companions soon felt the want of provisions, and on the 19th of January they left the harbor to search for provisions and wood. In stormy weather, which was continuous, they touched at several points on the main, and at the Santa Barbara Islands, but finally retired to their winter quarters. In a second attempt at sea they were carried far to the southwest, where they discovered "some other desert islands, great and small." These were doubtless the Sandwich Islands. Still harassed by tempests the vessels were turned north, intending to make for the Bay of Monterey, but were carried beyond it—Herrera says to the 44th parallel of north latitude, where they saw the mouth of a large river. This was the highest latitude reached by Ferrelo. Storms were frequent, and the cold was excessive. He was thus forced to turn to the southward. Some of his company died; others were ill, and the able-bodied were on the point of starvation, "only a scanty supply of spoilt biscuit" remained. Thus crippled, he returned to Mexico with the remnant of his party.

There has been some difference of opinion with regard to the latitude reached by this expedition. If the 44° north, quoted by Herrera (probably from the journals of Cabrillo and Ferrelo), was actually observed by them, and if it is true, as asserted by Navarrete, that they were always in error by one degree and a half, it is fair to conclude that 42½° north latitude was the limit in latitude.

Ferrelo, on his homeward passage, probably saw Cape Mendocino. That name does not appear in his report, but the position corresponds with that of a headland which he named "Cabo de Fortunas."

Nothing in the history of these voyages as drawn from the reports of Cabrillo and Ferrelo indicates that either of those navigators entered the Bay of San Francisco, though they seem to have passed near its entrance several times. They certainly had no knowledge whatever of the great harbor to which the opening at the Golden Gate conducted.

Ferrelo reached Mexico with both of his ships after a passage of six weeks along the coast of California. On the first of March he was on the northern limit of his voyage, and on the 14th of April he entered the port of Navidad.

With the exception of Alarcon, all the chiefs of naval expeditions sent to California by Cortes and Mendoza had died or were lost at sea in the voyages. Only remnants of their parties returned with appalling accounts of storms and dangers encountered in frozen regions and on desert coasts. It is therefore no wonder that zeal for California exploration lessened, and that a long pause ensued unmarked by any similar attempt; that "*the north is cold, rough, and poor*" became an adage amongst Spaniards; and their horror of that region was deepened by the return of a remnant of De Soto's expedition in the same year with that of Ferrelo, 1543. The sufferers who survived the hardships of travel came back from the interior after seeking vainly for three years the fabulous Quivira, as others had sought an ever-receding Eldorado.

Such failures, of course, checked the fervor of discovery. Riches and employment nearer home were offered by the silver mines of Mexico, which disclosed abundant treasure, and at length attention was drawn to the advantage of settling and improving territory instead of merely plundering it. It was the avaricious spirit of the age that sent Cabrillo, Coronado, and De Soto so far to the north. When we consider that the Spaniards had in their earlier enterprises reached the fortieth parallel of latitude on the eastern coast, it may be said that in abandoning expeditions on the Pacific coast they relinquished North America; not only the shores but also the interior. But, considering the imperfect state of the art of navigation in the period here under review, it is remarkable that so much was accomplished in the way of geographical development. Moreover, fortune at the same period beckoned over quiet seas with favoring breezes toward the coast of Asia. Instead of heavy gales and a tempestuous ocean, the trade-winds invited navigators to the east. Cortes, the conqueror of Mexico, had sent out expeditions to the Old World, and Mendoza had also dispatched one under Villalobos in the year 1542, and when, soon after the middle of the century, the Philippine Islands were acquired by Miguel de Legaspi, a lucrative commerce was established between Mexico and Asia, the respective ports being Acapulco and Manilla.

Many vessels sent westward from New Spain had attempted to return over the broad Pacific, but without success. Sailing too far south in latitude the trade-winds were against them, and it was not until the time of Legaspi's expedition that the prevalence of winds north of the tropics was discovered. The first vessel that took advantage of these winds for returning from Asia to New Spain appears to have been the San Lucas, one of Legaspi's fleet, that deserted him in consequence of the disaffection of the captain and pilots. From Mindanas that ship kept a northerly course, and reached the American coast near Cape Mendocino, and from thence coasting along California arrived at New Spain. Of the same fleet another vessel, le Capitano San Pedro, took that course from the Philippine Islands under command of Father Andres de Urdaneta, who carefully kept a journal, made observations, and gave the results on a chart which served as a guide in subsequent voyages.

Somewhat above the 40th parallel Urdaneta had met the northwest winds, and sailed with them, as the San Lucas had done along the coast of California to the shores of New Spain, where he arrived three months later. Burney says that the chart of the Northern Pacific by Urdaneta was in use among Spaniards in 1623.

Soon after the discovery of this route a regular and profitable intercourse was organized between Mexico and Asia; and there is little doubt that this circumstance turned the tide of Spanish navigation again into its usual direction from east to west. Hence these excursions to the north may be considered as exceptional deviations. Amongst other causes conjoining to this result was the progress of the Portuguese in the northeast part of Asia. They had reached China as early as 1530, and probably visited Japan a few years after.

In the latter part of the sixteenth century there was apparently a pause in the march of enterprise at the north and at the south. California and Chili were no longer arenas of research, and some discoveries of early date were forgotten. Some even questioned the existence of the Strait of Magellan. The Spaniards at that time were in quiet possession of the Pacific Ocean as a great highway for richly laden galeons that passed from the New World to the Old, gathering the wealth of both, and they feared lest their advantage might be lost. When, therefore, Sir Francis Drake entered the Pacific Ocean the Spaniards were aroused as by a thunderstroke.

The interval between Cabrillo's expedition and the renewed spirit of adventure was, as usual in such cases, filled with fabulous tales of impossible voyages. Some instances will be mentioned:

A Portuguese sailor, named Martin Chacke or Chaque, was said to have sailed in 1555 from the Atlantic to the Pacific Ocean at the north of California, and to have reached the western waters in latitude 59 degrees north.

Andres de Urdaneta, before alluded to, a mariner well known in Spain, was reported to have gone from the South Sea to the Atlantic in 1556,–'57, circumnavigating the countries called California and Florida; and another Spaniard, Juan Fernandez de Ladrillero, in 1574, pretended that he had certain knowledge of the existence of a passage north of California and Florida; that he had been at the entrance of the strait, and could have easily gone through it if the condition of his ship had not forced him to return home. These reports are not worthy of critical inquiry as to their origin and history, having but slight relation to the coasts with which we are now concerned. Navarrete gives, for the curious, ample details in regard to the spurious reports.

SIR FRANCIS DRAKE, 1579.

English and French seamen and privateers had for more than half a century contented themselves with plundering Spanish colonies on the eastern side of America, but at length a bold adventurer extended his system of war and pillage into the Pacific.

Drake fitted out, partly at his own cost and partly by the aid of private gentlemen and companies, a fleet of five small vessels. At the outset his flag-ship was named The Pelican, and the commander was, in a certain sense, commissioned by Queen Elizabeth. The expedition left England in December, 1577, sailed on the track of Magellan, and passed through the strait named after that navigator. There Drake changed the name of his principal ship, calling it The Golden Hind, and towards the end of 1578, with only two other vessels in company, he entered the South Pacific Ocean. Soon after the two vessels separated from the flag-ship, and Drake continued the voyage alone in The Golden Hind.

In the spring of 1579 he sailed along the western coast of South and Central America, capturing and burning Spanish ships, and plundering some of the Spanish settlements. Laden with spoil, his vessel at length reached the harbor of Guatulco, but again put to sea on the 16th of April, steering boldly into the Pacific on a course west and northwest for 1,400 leagues without seeing any land. His probable intention was to circumnavigate the continent of North America and return eastward to Europe. Such design is not stated in the account of Drake's voyage, but the opinion then generally held, that America could be circumnavigated through an open sea or strait at the north, as it had been at the south, strengthens the probability of the supposition. Geographers of that period gave to the supposed channel at the north the name "Strait Anian," and under that name it is depicted on all the maps of the next two centuries, with outlines as distinct as if they had been actually surveyed. Frobisher had shortly before discovered the strait which bears his name, and thus in England the hope of finding a northern passage had become very strong. Without doubt the expectation of Drake was to reach Frobisher's strait from the west, and so avoid a long and dangerous voyage in coming home by the Strait of Magellan. Apparently with this intention he held on west and northwest, turning gradually eastward. The season and other circumstances of his passage seem to have been favorable until he reached the forty-second parallel of north latitude. There he encountered strong northwesterly winds and extremely cold weather, but turned his ship to the northward and eastward, and holding that course discovered the coast of North America in latitude 48 degrees north. At this point The Golden Hind anchored for some time in an open, illy-sheltered bay. It is a disputed point whether or not Drake reached the forty-eighth parallel as stated in The World Encompassed, or only 43 degrees, as given in Hakluyt's report of The Famous Voyage. The best English and other foreign authorities admit 48 degrees north latitude as Drake's northern limit.

The weather continued unfavorable; thick fogs prevailed, followed by a northeast storm in which the crew suffered much hardship and were greatly discouraged. Finally the extreme cold and recurring storms from the northwest obliged the commander to desist from his search for the supposed passage eastward, and the unbroken character of the coast which he had traversed

probably hastened his determination. He concluded that the coast, instead of turning eastward, "ran directly into Asia," and hence he resolved to sail for England by way of the Cape of Good Hope. With that intention he went southward to find a harbor on the coast of California in which his men might recruit their strength and repair the damaged vessel for such a voyage. In latitude about 38 degrees north he found the desired haven, and piously attributed its discovery to Divine Providence, which he declares had also favored him with a good wind for entering in safety. Here Drake passed nearly five weeks in repairing The Golden Hind, recreating his men, and exploring the surrounding country. The harbor which afforded the needful shelter was very probably that small bay that since Vancouver's time has been called Sir Francis Drake's Bay. The adjacent country was found "very pleasant, full of goodly plants, trees, and deer, of which (he says) sometimes thousands range in one herd."

It is remarkable that even the golden treasures of that region did not escape observation. In his report Drake says: "There is no part of earth here to be taken up wherein there is not some special likelihood of gold or silver;" but that sentence, though often reprinted and read by thousands, seems to have been overlooked or disregarded. Drake's intercourse with the natives was peaceful and cordial to such a degree that "they made him their king, and crowned him as such." He is generally regarded as the first European visitor on the territory of California and Oregon, though he was preceded in discovery at least as far as the forty-third parallel by Cabrillo and Ferrelo. He named the country "New Albion," because the cliffs on the coast appeared to him like those of Southern England. That name was retained on all European maps except those compiled in Spain for nearly two centuries.

On the 23d of July Drake left the harbor, and the day following fell in with several small islands, on which his men passed some hours in catching seals and birds. This group he named "The Islands of Saint James," subsequently the Spaniards called them "Los Farallones." Drake then sailed westward in pursuance of his design of returning to Europe by way of the Cape of Good Hope, and on the 26th of September, 1580, arrived in England, where he was hailed as the first circumnavigator of the globe. No immediate successor followed in this career.

Capt. Thomas Cavendish in 1587 made a voyage to the Pacific, but reached only the southern part of California, and recorded nothing new in the way of discovery. With this exception an interval of two hundred years passed (1579–1778), during which no English navigator appeared on the northwestern coast of America.

The next in enterprise and discovery was Capt. James Cook, and until his time the name of Drake, his harbor, his New Albion, and discoveries on the northwestern coast of America were freely mentioned by writers on geography.

FRANCISCO GALI AND JAYME JUAN, 1584.

Activity was awakened by the inroad of the English into the Pacific, and the Strait of Magellan became a prime object of attention to the Spaniards. The governors of Chili and Peru, wishing to shut that pass against the English, organized expeditions for the purpose, and tried to construct forts there. Similar measures at the northwest did not seem urgent, as no intruders, to their knowledge, had found entrance or exit in that direction. This fancied security lasted until it became known to the Spaniards in Mexico that Drake had visited and given the name of "New Albion" to a region far in the north. They heard, moreover, that the English were seeking from thence the "Strait of Anian," the discovery of which had been several times proclaimed. Fears of what might result finally induced the Spaniards to renew their northwestern explorations. As before mentioned, these had ceased with the voyages of Cabrillo and Ferrelo.

In the year 1584 Don Pedro Moya de Contreras, then Archbishop and Viceroy of Mexico, fitted out a fleet under command of Capt. Jayme Juan, with orders to survey the northwestern coast of America. A special object in this intended expedition was to effect some settlement on the coast of California, and to erect fortifications "for the benefit of Spanish ships returning from Asia."

After the year 1564 the Acapulco and Manilla galleons regularly sailed to the Philippine Islands by a southern route, taking advantage of the trade winds. Their return voyages were

made in a higher latitude, with variable winds, towards the shores of California, where northwest gales and predominant currents aided in the passage to Mexico. These Manilla galleons were the only Spanish ships that touched along the northwestern coast, and, so to speak, they had in that casual way kept some knowledge respecting it. For their safety in returning it was essential that the coast should be better known, and that some settlement, and, if possible, harbors for shelter should be established. As before stated, such an undertaking had been determined upon in 1584.

While the viceroy, Contreras, was preparing in the harbor of Acapulco the expedition for that purpose, a vessel from Asia arrived there under command of the able and enterprising pilot Francisco Gali. He was believed to have seen more of the northern parts of the Pacific Ocean, including the coast of Northeastern Asia as well as that of Northwestern America, than any one of his predecessors. Hence his voyage enlisted much attention, and though mainly intended for trade it ranked amongst enterprises for discovery.

Information in regard to Gali's voyage is contained in the work of Juan Hugues de Linschoten, "Reise-geschrift von de navigation der Portugaloisers in orienten," which was translated into English in 1598, and published by T. Wolfe in London. Linschoten says that the report which he gives of Gali's voyage was translated from the original Spanish into Low Dutch. Hakluyt reprinted in his third volume, in 1600, the English translation of Wolfe.

Gali had sailed in the year 1582 from Acapulco to Manilla, and from thence to Macao. Leaving the latter port on the 24th of July, 1584, he returned by way of Japan, of which Empire he believed he had seen the northeastern extremity, and then stretched his course over the Pacific Ocean, in a direction "east and northeast" towards America. The point where he reached the coast has been a matter of doubt. Navarrete and some others state the latitude as 57½ degrees north; but the English historians of the South Sea, Burney, Travers, Twiss, and others, assign the lower parallel of 37½ degrees. This last appears most probable, as it is supported by the Dutch report of Linschoten, by the translation of Hakluyt, and by the subsequent editions of his report. The version 57½ degrees north occurs first in a French translation of Linschoten, entitled "Le Grand Routier de mer. Amsterdam, 1638," and is probably a misprint.

Gali states that he saw on the coast a beautiful country covered with forests and entirely without snow. Sailing, as he did, from Macao, at the end of July, he probably reached the coast of America late in October, and at that time of the year he would no doubt have found Mount Edgecumbe, nearest to which Navarrete supposes him to have touched, covered with snow.

This voyage was a trading expedition. With Gali, discovery was incidental. His report does not refer to a northwest passage. The object was, with ship and goods, to reach New Spain without delay. Nothing but irresistible necessity, due to storms, could have driven him so far out of his course. He seems to have followed the usual track of Manilla vessels, perhaps a little farther to the northward.

The expedition then preparing at Acapulco, being destined for the region so recently visited by Gali, the viceroy consulted that navigator in regard to it, and the report of his voyage seems to have been drawn in response. This was accompanied by a map giving latitudes and longitudes.

How far the preparations of Contreras had then advanced is not exactly known; probably not far, as in a letter to the King of Spain, dated March 24, 1585, he alludes to his "intentions," and solicits the royal sanction and support. However, the viceroy was superseded in his government at the end of the year.

SEBASTIAN RODRIGUEZ CERMEÑON, 1595.

It has been already mentioned that the English adventurer Cavendish, had, like Drake, made his way to the coast of California. In emulation of the last-named commander, Cavendish captured the Santa Anna, one of the richest of the Manilla galleons. This was in November, 1587. The loss, when made known in Spain, suggested the expedieney of sending out their vessels, intended for California, from the Philippine Islands, rather than from Mexico, because the prevailing winds would in that case be favorable.

Don Luis Velasco, Viceroy of New Spain from 1590 to 1595, accordingly issued instructions for testing the route. It is probable that Gomez Perez de la Mariñas, to whom that service was

intrusted, used one of the regular Manilla galleons, as the vessel (The S. Augustin), besides being commissioned to make discoveries, was laden with silks and other oriental goods destined for Mexico. Navarrete says that this ship was specially commissioned to examine the "port of San Francisco" and its vicinity. So far as we know, this is the first mention of a port with that name. The adventure was extremely unfortunate. Cermeñon reached the coast of California, but his vessel was wrecked in the immediate vicinity of a large harbor, called by Torquemada, the historian of the expedition, Puerto de San Francisco. The ship, the goods, and the greater part of the crew were lost. Some of the men found their way back to Mexico, and amongst them Francisco de Volaños (called "Pilote Mayor"), who gave information of the disaster, and afterwards (in 1603) accompanied Viscaino to the place where it occurred. From some accounts it seems that the vessel was stranded inside of the bay; but the Spanish pilot, Cabrera Bueno, in his sailing directions (Dalrymple, p. 48), seems to indicate the Farallones, but adds, that "the loss was due more to the fault of those on board than to stress of weather." What is known of this interesting expedition is stated by Torquemada. Argensola does not mention it in his history of the Philippine Islands. The San Augustin is said to have foundered "in the port of San Francisco." The Spanish pilot says: "In the port of San Francisco, on the islands of Farallones"!

Some have thought that the "Puerto de San Francisco" of Torquemada was our Bay of San Francisco, but it is more probable that he applied the name, as the pilot, Bueno, evidently did, to the waters south of Point Reyes, east of the Farallones, and off the Golden Gate. Subsequent statements seem to prove that neither they nor Volaños had any knowledge of the landlocked bay now bearing that name.

SEBASTIAN VIZCAINO, 1596.

The wreck of the San Augustin made evident the necessity for a settlement on the coast of California, and preparations to that end were ordered by Philip II, to carry out the plans of the viceroy, Contreras. Soldiers, sailors, and laborers were recruited, and three vessels were fitted out with requisites for a settlement. Some women were also embarked. The expedition was placed in charge of the very enterprising pilot, Vizcaino. The principal authorities for particulars respecting this expedition are Torquemada "Monarquia Indiana," and Navarrete, who used some manuscripts ("algunos documentos manuscriptos") which he does not further describe.

This expedition sailed from Acapulco in the beginning of the year 1596 and was in all respects ineffectual. Vizcaino spent his time, provisions, and means in an abortive attempt to found a settlement on the rocky coast of the Californian peninsula; but finding his ships and their crews no longer in a condition to pursue discoveries, he returned at the end of the year. The only result was merely the change of a name. The bay known in the time of Cortes as Santa Cruz was subsequently called La Paz.

Some delay in Californian research followed the death of Philip II; but in 1599 his successor, Philip III, sent orders to the count of Monterey, Viceroy of Mexico, to make arrangements for an expedition to the northwest. Monterey decided to employ Vizcaino, who was then supposed to have more knowledge of the coasts of New Spain than any other commander. On his second voyage he set out from Acapulco on the 5th of May, 1602. The principal sources of information respecting it are the following:

1. The original journal kept by the Carmelite monk, Father Antonio de la Ascension, who accompanied the expedition. Venegas says in his Noticia, volume III, page 23, that he sought in vain in the archives of Seville for the original journal of Vizcaino's voyage. Navarrete says (page lxviii) that he found there a copy of the original, which original had been left for preservation in Mexico.

2. A report of the voyage by Torquemada in his "Monarquia Indiana," lib. 5, cap. 45. This writer had access to the journal of Father Antonio, or had a copy, from which he made extracts. But as the report itself was never printed, Torquemada was for upwards of two centuries the only authority in regard to the particulars of the voyage. When his work (printed in 1615, and again in 1725) became rare, Venegas reprinted it (in 1757) in his "Noticia de la California."

3. Navarrete, who, in addition to the original report of Father Antonio, used other manuscript documents, accessible only to himself. He names the following:

(*a.*) The agreements and opinions of the councils and meetings of Vizcaino's officers held in the course of the voyage.

(*b.*) The Rontier of navigation along the coast of California, made by the cosmographer, Geronimo Martin Palacios, who accompanied the expedition.

(*c.*) Thirty-two charts and plans of the coast, showing ports, inlets, &c., made by Enrico Martinez, cosmographer of the King, in New Spain. Navarrete compiled from them a general chart. He used other documents, but does not specify in regard to them.

With greater facilities than either of his predecessors, Vizcaino surveyed more accurately the coast line of California from Cape San Lucas northwestward to beyond Cape Mendocino, beyond which limit he was not authorized to go. That headland was the point for which the Manilla vessels on their home voyages usually made; and north of it they never sailed.

Vizcaino had with him experienced officers, amongst whom were Volanos, the surviving pilot of the San Augustin, and a distinguished cosmographer, Geronimo Martin, who was commissioned to draw the maps and charts of the expedition.

The fleet commanded by Vizcaino consisted of two large ships, the Capitana San Diego and the Fregata Tres Reyes, which last was accompanied by a small tender, the Santa Tomas, for navigation in shoal water. He had also a long bark (un barco luengo) for entering inlets, rivers, and creeks, but that craft proving to be an incumbrance was abandoned near Cape San Lucas.

During the first six months the party was employed in carefully examining the western coast of Lower California. They discovered, named, and surveyed a number of bays, as Magdalena, Santa Marina, Ballenas, San Bartholomé, Simon and Judas, and Todos los Santos. Off the southern extremity of the coast, where they arrived early in November, four small islands were discovered, to which they gave the name "de los Coronados."

On the 10th of the same month the little fleet entered a harbor north of the Coronados, which harbor, sixty years earlier, Cabrillo had named San Miguel; Vizcaino gave it the name of San Diego de Alcada, probably in honor of the holiday which falls on the 12th of November, and perhaps, also, to commemorate the name of his flagship. With the two exceptions (Point Pinos and Cape Mendocino), no geographical name given by Cabrillo has been retained. Hence it may be inferred that Vizcaino* was not acquainted with Cabrillo's reports nor guided by his maps.

After providing wood and water Vizcaino sailed on the 20th of November. On the 27th they had in sight a large island, which they named Santa Catalina, as first seen on St. Catharine's day. It was found to be densely populated. After mapping the island the voyagers kept on southward and reached the island now known as San Clemente, the survey of which was deferred and not finally accomplished. Hence it received no name at the time, and is not marked on the chart of Vizcaino.

On the evening of Santa Barbara's day (3d of December) the party was at the eastern end of a chain of islands between which and the coast of California lay a broad channel. Through this they sailed, favored by a southwest wind, which opportunely continued until they reached the extremity of the passage near Point Conception. There the weather changed. A furious northwest gale, with a heavy sea, separated the ships and threw them back towards the islands The storm of two days subsided as the calendar marked "the feast of Holy Nicolas" (December 6) and the name of the saint, perhaps, in allusion to this event, was given to one of the Santa Barbara Islands. Soon afterwards the fleet rounded the cape which Cabrillo had doubled under like stress of weather sixty years earlier, and which he at the time gave the name of Cabo de Galera. Vizcaino named it "Punta de la limpia Conception," and it is still known as Point Conception.

Sailing along the coast towards Monterey the mariners came in sight of a range of high mountains which Cabrillo had seen at the same season of the year (early in winter) and named "Sierra de S. Martin." It was named by Vizcaino, "Sierra de Santa Lucia," probably because it came into view on the 13th of December, the day of the Holy Lucia. By that name the mountain range is yet known amongst Spaniards. The captains of returning Manilla vessels had been accustomed to recognize the coast of California by this landmark.

A small river, 2 leagues south of Point Pinos, also received the name which it still bears (Rio

*The configuration of San Diego harbor is well represented on his chart.

del Carmelo); and on the 16th of December the ships entered the Bahia de Pinos of Cabrillo, which, however, Vizcaino named in honor of the viceroy, la Bahia de Monte Rey. There he remained nearly three weeks, and from thence dispatched the Santo Tomas to Mexico with the invalids of his party, and a report, with a chart for the Viceroy, of all that had been developed geographically up to that date.

After providing wood and water Vizcaino sailed again to the northwest on the 3d of January, 1603. For several days the wind was favorable. They passed the entrance to San Francisco Bay, but on the 7th a heavy northwester separated the vessels, and they did not meet again until their arrival in Mexico. The Frégata was in advance, but supposing her to be delayed, Vizcaino entered the port of San Francisco in shelter of a cape, which he named Punta de los Reyes. So says Torquemada—but his Puerto de San Francisco is not the bay which now bears that name. Vizcaino wished to explore the place and search for vestiges of the crew and landing of the San Augustin which had been wrecked in 1595; but, anxious in regard to the missing Fregata, after a delay of two days he went to seek her at the northwest, the direction he supposed her to have taken.

To the little harbor in which he had anchored he gave the name which he had applied to the sheltering cape, calling it the Port of the Kings, probably because he discovered its entrance on "the day of the Kings," and perhaps also in allusion to the Frégata Los tres Reyes, which was ~~lost~~ missed in the same region. The name is not in Torquemada's extract, but it is on Vizcaino's chart. The former mentions only a "Punta de los Reyes" in this vicinity.

Beating and tacking against northwesterly winds, the San Diego advanced slowly. On the 12th of January a high projecting cape was reached in latitude 41½° north, thought by the pilots to be Cabo Mendocino, where they encountered a strong southeast storm, thick fogs, and a boisterous sea. Six only of the crew were capable of duty; the others and the officers and missionaries were sick (en las camas) in their beds.

Under these circumstances it was decided to turn back, but the storm lasted for some days and drove them still further north. At length, on the 21st of January, a northwest wind set in and cleared the atmosphere. They observed for latitude at 42° north (in their reckoning), where a white cape was in view, which they named "el Cabo Blanco de San Sebastian," because fair weather appeared on the eve of the day of the martyrs, San Fabian and San Sebastian. From thence they turned back to the southeast with a favorable wind. The cape is not indicated on Vizcaino's chart, nor is it marked to show either latitude or longitude. Later Spanish navigators have given the name Cabo San Sebastian to a point near the 42d parallel, now called Point George; but as before stated, if Torquemada puts Cape Mendocino one degree too far north, it is probable that other assigned positions are as much in error. Its true place therefore would be near Humboldt Bay or Trinidad Bay.

The home voyage was quickly made, and to allow observation the ship was steered as near to the coast as possible. But very little could be done, as the crew was sick with scurvy and some among them died. The intended survey of the other Santa Barbara Islands was of necessity renounced, as also the resolution to winter at Bahia de la Paz to wait for supplies. They sailed, therefore, directly for New Spain, and arrived in the harbor of Acapulco on the 21st of March, 1603, where they again met the crew of the Fregata.

The gale of the 6th of January, which had separated the two vessels, and from which the San Diego had sought shelter in the Puerto de San Francisco, had carried the Tres Reyes (commanded by Martin de Aguilar) some distance further north. Off Mendocino he encountered the same southeast storm which had forced Vizcaino into port, and was driven by it to latitude 43° north, according to an observation made on the 19th of January by the chief pilot, Antonio Flores. Here Aguilar gave the name of Cabo Blanco to a white cape, where (as Torquemada says) "the coast begins to turn to the northwest." Near it ran a deep and crooked river, which he attempted to enter, but its strong outward current baffled every effort.

After doubling Cape Mendocino, the Fregata, having advanced further north than was warranted by instructions, turned back southward; and the crew suffered greatly from scurvy. Aguilar and Flores died before the vessel which carried them reached San Diego. The ship

was, therefore, taken to Acapulco by the pilot, Estavan Lopez, and there he was joined by the Capitana.

The general opinion has been that the extreme limit reached by Aguilar was the present Cape Blanco or Orford, which is usually marked on Spanish maps "Cabo Blanco de Aguilar," but that supposition rests on the single observation for latitude made by the pilot, Flores. If the latitude stated in Torquemada for Cape Mendocino is one degree too high, we should look for this Cape Blanco somewhere about Point George; but there is near it no considerable stream, nor beyond it does the coast begin to turn to the northwest, but, on the contrary, trends somewhat eastward. Moreover, it is said by Vancouver that our Cape Blanco or Orford does not look white, being covered with dense forests down to the sea. To reconcile the discrepancies, or at least some of them, Captain Burney supposed that in January, when Aguilar was on the coast, every part exposed to the prevailing wind was probably whitened with snow. Near Point George the Klamath River empties, and beyond that entrance the coast inclines to the northwest. It is possible, therefore, that the position here referred to may have been the Cape Blanco of Aguilar, but the question cannot be decided. The river was not deemed of much consequence. Crooked and deep it is styled in the report, and doubtless it was magnified into undue importance, it may be, because that point was for a century and a half the northern limit of Spanish navigation. Every inlet or river mouth in that region was expected to be or to lead into the Strait of Anian, or into the western end of some passage around America. Aguilar's cape and river are noticed in all geographical books, and are marked on nearly all maps of the seventeenth and eighteenth centuries.

This expedition of Vizcaino, like that of Cabrillo, was more successful than other Spanish voyages to the northwest. Both saw the same stretch of coast, and reached about the same latitude. Vizcaino observed everything closely, and his work deserves to be called a detailed reconnaissance. His desire was to push exploration northward; find the Strait of Anian; sail around America, and return by that route to Spain. But these schemes were never accomplished. Vizcaino went to Spain, and after much exertion obtained from Philip III an order for the furtherance of his projects, but before needful arrangements could be completed he died, and with him expired the spirit of enterprise. It was, says Navarrete, "an epoch in which the Spanish nation retrograded." Spain was not afterwards governed by such monarchs as Ferdinand, Charles, and Philip II.

NEW MEXICO.

During the seventeenth century the court of Spain was beset by applicants, native and foreign, offering vague projects for the development of the Straits of Anian; and many unsuccessful expeditions were planned for settlements on the peninsula of California. Throughout the century nothing was done to advance knowledge respecting the geography of the northwest. That region seemed to be forgotten. There was, however, one expedition planned near the close of the previous century, and accomplished, which to a certain degree connected with the geographical history of the western coast. This was the discovery, conquest, and settlement of New Mexico. The enteprise, like many others, was suggested by a Franciscan monk, Friar Augustin Ruiz, who lived in the valley of San Bartolomeo, near the silver mines of Santa Barbara, at the outskirts of the Spanish settlements. As early as 1581 he had journeyed among the Indians at the north, and brought back intelligence of a beautiful and populous valley through which flowed a river several hundred leagues in length.

Antonio de Espejo, a wealthy and energetic man, put himself at the head of a company of soldiers, and with some Franciscan monks marched, in 1582, to search for the valley and river described by Ruiz. As he afterwards reported, Espejo reached "nearly to the source of the river" and found every where villages and towns, with the inhabitants of which he held friendly intercourse. He also made a journey to the eastward through the buffalo country, and another westward as far as Cibola and the river Gila, where Coronado had been previously.

In 1583, Espejo returned to Mexico and reported his discoveries. Attempts were made at intervals for the conquest of the interior, and at length Monterey, the Viceroy who had directed the voyages of Vizcaino, struck a decisive blow. He dispatched Juan de Oñate, an officer of high

repute, with an army of about one hundred Spaniards and five hundred Indians, to the north, took possession of the country, and gave to it the name of New Mexico. Thus Oñate became the founder and first governor of the new province, and in it was established, in 1611, the flourishing capital of Santa Fé.

In these contemporaneous expeditions of Vizcaino and Oñate may be traced a correspondence with the sea and land enterprises of Alarcon and Coronado, sent out by Mendoza.

The upper valley of the Rio del Norte is a fertile oasis in the midst of deserts. Santa Fé soon became a station of great importance as the depot for all Spanish expeditions to the eastern, northern, and western regions. From thence discovery was pushed to Lake Utah, called by the Spaniards "Timpanagos," and westward far into the territory watered by the river Gila. After the settlement of the coast of California a road was laid out, terminating at Santa Fé.

The first explorers of the valley of the Rio del Norte reached that river near the great bend called El Paso, where the channel takes an easterly course towards the Gulf of Mexico. The Spaniards had explored only the upper valley. They knew indeed of the Rio Bravo, but believed it to be a separate river, having followed it only to El Paso where the stream is hidden amongst rocks and mountains. Ignorant of the course, the termination was supposed to be in one of the rivers of Cinaloa, or some water-course emptying into the Gulf of California. The discovery, therefore, of the Rio del Norte was considered by many as pertaining to the history of the northwestern side of America, and as merely an addition to their knowledge of the Pacific basin. This hypothesis, or rather geographical error, was long maintained, but was corrected on European maps by Coronelli about the year 1680.

Of the fabulous accounts in regard to discovery, circulated between 1609 and 1625, only two are deserving of mention, namely, those of Ferrer Maldonado and the so-called Juan de Fuca.

The false reports were repeatedly disproved, but they influenced the history of geography. Maps were constructed and the erroneous details were admitted in historical works. Names attached to the assumed discoveries were given to previously known localities as well as to imaginary straits, rivers, and countries. Expeditions were organized and instructions were issued for exploring the regions that had been fictitiously described. In 1790, the officers of the Spanish expedition of the Descubierta and Atrevida were directed to explore the coasts, straits, and harbors supposed to have been discovered by Maldonado.* The influence of these stories dates from the time of their promulgation, and not from the period at which the incidents were supposed to have occurred. Maldonado pretended that he sailed in the year 1588, but the "results" of his voyage were not given to the world until the year 1609. De Fuca, though his expedition was said to have been made in 1592, brought no account of it before the public previous to the year 1625. In a chronological record of discoveries these impositions must be referred to the time of their publication.

Lorenzo Ferrer Maldonado was well known in Spain as a schemer and adventurer, and his story touches but lightly the geography and history of California. He pretended to have sailed from Lisbon to Labrador in 1588; and from Labrador to the Pacific through a narrow strait by which a passage from Spain to China could be accomplished in three months. In 1609 he presented to the Spanish Government a report on discoveries and added a proposal to return to the spot and employ himself in erecting fortifications against the encroachment of foreigners. But, after careful examination, his statements were decided to be false, and his proposition was of course rejected. He was treated as an ignorant impostor and charlatan. Some subsequent historians, nevertheless, ready to believe any wonderful tale, mention these pretended travels and discoveries; and thus the subject was kept alive through the seventeenth and eighteenth centuries. Copies of Maldonado's original papers deposited in the Spanish archives found their way, we know not how, into foreign countries, and near the end of the eighteenth century (1790) the French geographer, Buache, "who clung fondly to questionable discoveries," drew attention to them by declaring his confidence in the veracity of Maldonado's statements. The last, perhaps, to give credence to the narrative of adventures was the Italian savant Amoretti who in 1812 edited an old manuscript found in the Ambrosian Library, which manuscript he supposed to be a copy of the original report.

* See "Oregon Question," p. 82, and Navarrete, p. li.

We need not enter minutely on the subject, as it bears only a remote relation to our object. The reader is referred to Navarrete, pp. xlix–lii; Twiss, "The Oregon Question," London, 1846 pp. 79–82; London Quarterly Review, 1816, vol. 16, pp. 129–172. The author of the article in the Quarterly thinks it possible that Maldonado might have seen Cook's River, and mistaken it for a strait between America and Asia. See also Burney's History of Voyages to the South Sea, vol. V; and Barrow's Chronological History of Voyages to the Arctic Bay.

The story of Juan de Fuca bears more directly on one subject. It was first printed by Purchas in his third volume, and was published in 1625, although it seems to have been in manuscript some time earlier, and may have been known to a few persons. The Englishman Lok relates, in the report published by Purchas, that he met in Venice an old Greek navigator named Juan de Fuca or Apostolos Valerianos, who told him that he had been a captain in the Spanish service, and as such had been sent in 1592 to the northwest in command of a small vessel by the Viceroy of Mexico, probably Don Luis de Velasco, who filled that post from 1590 to 1595. He stated that he had sailed along the coast of California beyond the forty-seventh parallel of north latitude; and there found the coast trending east and northeast, forming with the opposite shore a broad inlet. At the entrance he said there was a remarkable rock, having the appearance of an island, and northwest of it a pyramidal rock.

Beyond this strait spread a wide inland sea, which stretched into openings towards the south, the north, and the east. At various places on the shores he had found fertile country and natives clothed in the skins of animals. He further asserted that he sailed a long course through open water, and after passing many islands came out into the North Sea or Atlantic Ocean, from whence he returned to Mexico and reported to the viceroy. He had also reported in person to the King of Spain, but though well received in both instances his services were not properly rewarded, and he finally returned to the island of Cephalonia, where he belonged.

This account soon after appeared in a work published by Lucas Fox, and was repeated by many writers. Believers in the truth of the narrative were numerous in the seventeenth and eighteenth centuries. De Fuca's discoveries, like those of Maldonado, were represented on maps, and De Fuca's Strait is laid down north of California in contemporary works, at about 47 or 48 degrees of north latitude.

Towards the end of the eighteenth century such a strait as De Fuca has described was found beyond the forty-eighth parallel, trending eastward, opening into wide water, having many islands and inlets to the south, north, and east; surrounded, too, by a fertile country, and peopled by fur-clad inhabitants. Some travelers thought they recognized the pillar-like rock on the southern side of the entrance, as he had represented.

Many were induced to believe in the truthfulness of De Fuca's report, and the channel was named De Fuca's Strait. Some thought that the first part of his story, so far as it related to the channel and a broad gulf beyond, might be true, but doubts were entertained in regard to his coming out upon the Atlantic. It seems likely that he passed around Vancouver's Island, after being in the Gulf of Georgia, and so passed into the Pacific. But Navarrete asserts that no navigator of the name Juan de Fuca or Apostolos Valerianos was ever at any time known in Spain or mentioned by contemporary Spanish writers; nor is there extant any record of the visit of such a person to the King of Spain or to the viceroy of Mexico. In none of the papers relating to the expeditions of Vizcaino, written only a few years after 1592 (the time of De Fuca's supposed voyage), can be found any allusion to him; nor is any document bearing on his history in the archives of Sevilla or New Spain. It seems probable that Juan de Fuca never made a voyage in the service of the viceroy of Spain, nor discovered a strait in the latitude indicated, and it may be considered as a mere accident that in the beginning of the seventeenth century a strait in that region was described in a manner coinciding so nearly with the reality as ascertained at a much later date.

The history of Spanish expeditions to the peninsula of California is somewhat tedious. They were not ably conducted; they entailed large expense; scarcely furthered the progress of discovery; and in no instance enlarged the boundaries of the Spanish settlements In fact, they touched only the southern part of the eastern coast of the peninsula. The western coast of the peninsula was not surveyed, nor was the upper end of the Sea of Cortes visited for many years. Its configuration, well

known in the time of Cortes and Mendoza, was so utterly forgotten that the gulf was supposed to extend to the forty-eighth parallel, and that it connected there by a channel, both with the Pacific Ocean and with the Atlantic. California was considered, therefore, not as part of the continent, but as a large island reaching from De Fuca Strait to Cape San Lucas. This erroneous notion seems to have originated with some Dutch freebooters called Pichilingues, who in the beginning of the seventeenth century formed a piratical settlement in the Bay of Pichilingue, on the southern coast of California. They caused it to be reported in Holland that a vessel had once sailed through the Sea of Cortes (Gulf of California) to the north, and from thence had come out upon the Pacific, thus circumnavigating the whole area of California. The story was believed, and a map constructed to accord with it was sent to England. Purchas, who was one of the earliest adherents of this geographical theory, published an account of it in 1625 in the third volume of his Pilgrims, and inserted also the first printed map of North America, on which California is represented as an island, and the Sea of Cortes as a broad channel of enormous length. The views of Purchas were adopted by nearly all the geographers of the time. Spaniards, even forgetting the maps of Castillo and their other pilots (then lying in the Spanish archives), shared at last fully in the belief, and about the year 1670 changed the name California to another in honor of their sovereign, Charles II. They named the country "las Islas Carolinas," intimating that it formed a cluster of large islands.

The unsuccessful attempts made at this time by Spaniards, in regard to discovery and development, appear as types of the condition into which the great Spanish monarchy had fallen. In this prostration Mexico participated. Commonplace explorers with great pretensions were sent out, and were styled "Admirals"; but they were feeble in comparison with such captains as Ulloa, Cabrillo, and Vizcaino.

After the death of Vizcaino, the first who was commissioned to conduct an expedition to California appears to have been Juan Iturbi. With two ships he passed along the greater part of the eastern coast of the peninsula, and as far north as 30°, but was driven back by northwesterly winds, and in distress reached the shores of Cinaloa, where he was received by the Jesuit missionaries, who saved his life. Father Andres Perez de Ribas, a Jesuit, wrote the history of this expedition.

One of the vessels of Iturbi had been captured by the Pichilengues, and it was feared that those pirates might attack also the returning Manilla galleon. Iturbi, therefore, on arrival, was sent out again to protect the galleon, and the further exploration of California was abandoned. There was no other effort in regard to that object made until 1632, when Francisco de Ortega attempted it. He surveyed only a small part of the coast between Cape San Lucas and the Bahia de la Paz, and from the last-mentioned place made his way back to Mexico. In 1633 and 1634, he made two other voyages to the same region, with the intention of founding a settlement, but the attempt was unsuccessful.

Iturbi seems to have derived some profit from the pearl fisheries, which were then still productive. Spanish settlers on the coast of Mexico and Cinaloa were thereby induced to fit out vessels and cross the Gulf of California to seek for pearls on the opposite shore.

In official expeditions, or such as were assisted and favored by Government, Ortega was followed by his pilot, Estavan Carboneli, who affirmed that his chief had failed from want of knowledge and courage. Carboneli promised to find, in a higher latitude, a more fertile country, better adapted for settlement, and he set sail for that object in the year 1536. He "advanced as far north as he could," to what latitude is not stated, but only sterile rocks and poor Indians were to be seen. He collected some pearls, as others had who preceded him, and returned to New Spain, where Ortega saw him derided, in turn, as an ignorant poltroon.

Venegas says that one reason why these repeated expeditions to California did not succeed was that no care was taken of former reports, surveys, maps or plans. "They were not carefully preserved and made known by print."

The usefulness of the enterprise being evident, it was renewed in the year 1642 by the viceroy Don Diego Lopez Pacheco, who sent on this occasion the governor of Cinaloa, Don Luis Cestin de Canas, with soldiers and missionaries, with the often repeated instructions "to survey the coasts, bays, islands, rivers, inlets, and creeks of California." The result was much the same as

in former instances. Cestin visited Bahia de la Paz, and from thence sailed along the coast, but only "forty leagues to the northwest." Father Jacinto Cortes, a Jesuit missionary who accompanied him, wrote a report of the expedition, which report was sent to the Viceroy, with some pearls which had been collected on the coast.

Governor Cestin was followed in adventure by the Admiral Don Pedro Porter de Casanate Venegas so writes the name, but in Navarrete it is written "Porter y Casanata."

Casanate embarked for California in 1643. Three years earlier that officer had been commissioned to survey the coasts of the Pacific in the immediate vicinity of the peninsula (Lower California) and to make soundings. Navarrete says that the results, after presentation to the council of the Indies, were deposited with other documents in the "Archives of India."

Duly empowered in 1640 to make the intended exploration, Casanate had also, by authority, a monopoly in regard to navigation in the Gulf. The reason of his detention in Spain is not explained. In 1644, when his expedition was ready, he was ordered to sail without delay toward Cape San Lucas, to convey the Manilla galleon, and protect it against some English and Dutch pirates who had been seen in the waters of New Spain. At length the survey was commenced on the eastern coast of the peninsula, but was again deferred in consequence of an urgent call to guard the Manilla vessels against the ever-threatening pirates.

Thus interrupted, the Admiral did not return to California, but reporting the difficulty of the undertaking to the Viceroy of Mexico, he was soon afterwards sent to South America and made Governor of Chili. His abortive undertakings in regard to geographical development were so discouraging that an interval of twenty years elapsed in which nothing was done. But, towards the end of the reign of Philip IV, an order was issued for further exploration. The command of an expedition was intrusted to Admiral Don Bernardo Bernal de Piñadero. The outfit was small, as the condition of the Spanish treasury was low. With two small vessels he sailed, in 1664, for California. Instead, however, of surveying the coast, the avaricious soldiers of the party would attend to nothing except pearl fishing. They forced the natives to do all the heavy work for them, and when a quantity of pearls had been secured they quarreled among themselves in the division. Piñadero, for himself, secured a small share, but was constantly engaged in efforts to keep his men from quarreling.

A second voyage by the same admiral in 1667 was not more successful, and no result marked the next expedition, which was led by Francisco Lucenilla in 1668.

Philip IV, the monarch who had directed the last-mentioned enterprises, died in 1665. In the early part of the reign of his successor, Charles II, nothing was done. But the Council of the Indies, aware of the advantages that might result from the conquest of California, determined to renew efforts towards that end. In the year 1677, orders for the purpose were issued to the Viceroy of Mexico, and a contract was made with the Admiral Don Isidoro de Atondo as commander, who was confident of success notwithstanding the failure of all his predecessors.

On the 18th of May, 1683, Atondo sailed with two ships carrying sailors and soldiers, and a third vessel laden with implements, munitions, and provisions. He arrived at Bahia de la Paz and fortified against hostile Indians, but the store-ship, beaten off by storms, was so long delayed that the soldiers suffered for want of food. One of the vessels was therefore sent to New Spain and obtained a cargo, but was unable to reach port. Three attempts were made, but the vessel was driven back although in sight of the coast. Under these circumstances Atondo found it impossible to maintain order, and was obliged to abandon his position at La Paz. By the sale of everything he could dispense with he was enabled to procure provisions, and he embarked for a more northern bay in latitude 46° 30′, which he called San Bruno. This doubtless was the bay afterwards called by the Jesuits "Bahia de la Conception."

On his arrival Atondo commenced a settlement, built a church, and passed a year in exploring the neighboring regions. He made distant excursions, and tried by traversing the peninsula to reach the Pacific side. On these journeys, and generally in his travels, he was accompanied by missionary Jesuits, who thus became thoroughly acquainted with the country and learned the languages of the natives. At the head of these missionaries was the intelligent Father Kino, or Kuhn, a German, who had served as cosmographer (cosmografo mayor) in the expedition, and who subsequently wrote a very interesting account of it.

Atondo seems to have been energetic, but he spent nearly three years in ineffectual attempts to make a settlement in California. Finding it impossible to procure means for maintaining a colony, in the autumn of 1685 he re-embarked the soldiers and missionaries, and taking a few of the baptized Indians, returned to Mexico. There he found other employment, and in addition was ordered to start to oppose pirates and convoy home the Manilla galleons. Nothing was gained by the expeditions of Atondo. They were costly, and consequently there was little disposition either in Mexico or Spain to incur further outlay. The government of Mexico, says Father Baegert "renounced not only all activity in this direction, but actually refused assistance and protection for private undertakings to California."

1697–1717.

California, thus abandoned by the Spanish Government, still had the attention of the Jesuits, who were then powerful and active in both divisions of the western hemisphere. They had established missions along the eastern side of the Gulf of California, and through Cinaloa, Sonora, and Pimeria, and furnished missionaries, journalists, cosmographers, and historians to nearly all the Government expeditions, down to that of Admiral Atondo, who was, as already stated, accompanied by Father Kino. These pious men thought that by preaching to the Indians, and conversing with and civilizing them, might be accomplished, what no avaricious merchant or pearl fisher, no sailor or soldier, however courageous, had been able to effect, the settlement and exploration of California. They proposed therefore a system of procedure in which missionaries should not be subordinate either to a military or naval chieftain. Missionaries were to take the lead with an army at their command.

The most complete history of the Jesuits in California is "Noticia de la California y de sucon. quista temporal y espiritual hasta el tiempo presente, sacada de la historia manuscripta formado in Mexico año de 1739, por el padre Miguel Venegas, de la Compañia de Jesus; y de otras Noticias y Relaciones antiqnas y modernas Añaclidá de algunos mapas particnlares, Madrid, 1757." The work is in three volumes, and is generally ascribed to Venegas; but the history of California is carried by him only down to the year 1739. Andreas Marco Burriel compiled from the manuscripts of Venegas and from other sources and issued an edition in 1752. The work is valuable, but there are misprints in regard to the chronology. The third volume contains interesting quotations from other authors and treatises on geographical questions relating to California.

On the subsequent history of the Jesuits in California, from 1752 to 1767, when they were compelled to leave that country, many books have been published. One of the most valuable of these was written by Baegert, and was printed in 1773. Baegert was a German Jesuit who passed much time in California. His clear narrative and description of the country include references to the missions and journeys, and mention of the close of that religious order on the coast. This work also was translated into English and some other languages.

Juan Maria Salvatierra, an Italian nobleman of Milan, and a Jesuit, was at this time in Mexico. He was known as a man "of zealous faith, of large mind, and of great patience, and withal of a strong bodily constitution." While visiting the mission of Sonora he met the German Jesuit Franz Kuhn (called by the Spaniards Francisco Kino), who told him of the neglected state of the country and of the misery of its inhabitants. This relation kindled in the mind of Salvatierra a desire for Christianizing the Indians. He finally received permission to go to California, but nothing was to be expended from the royal treasury on his account.

Salvatierra was poor, but a wealthy gentleman of Acapulco, Gil de la Sierpe, placed at his disposal two vessels and a sum of money. He received contributions also from Europe. Five soldiers, several seamen, and some associates accompanied him, and, having procured a cannon, with provisions for the expedition, he sailed, in October, 1697, from Cinaloa to the coast of California, and settled in latitude about 26° north, where he founded a mission which he called San Loretto. He preached to the Indians in their own language, baptized them, and resolved to pass his life in religious work. More than twenty times he crossed the Mar Vermejo, and was enabled by the assistance of his friends in Mexico to procure men, missionaries, and provisions, and to found several other missions on the coast of California. Between the years 1697 and 1716 he

expended in this work 300,000 "pesos duros," collected by himself and his pious companions from devoted individuals and corporations in sympathy with the cause.

This was the first of several Jesuit missions in Lower California. They attracted attention in Europe, and were believed to be constituents of a powerful domination aiming at riches and empire. Such was the accusation, and it resulted in the dissolution of the order.

What the Dane Egede did for Greenland, Salvatierra effected for California. He labored also for the exploration of the country, made excursions to the interior, and decided the long-standing doubt concerning the peninsula, which by many was supposed to be an island. At his request, Father Kino traversed the country from Sonora to the Rio Colorado. The usual residence of Kino was the mission of Neustra Sonora de Dolores, on the northern frontier of Sonora. In one of his journeys (in the year 1700) he followed the course of the river Gila down to its junction with the Colorado, but for want of provisions could proceed no further. Before returning he ascended a mountain, and, looking westward and southward, saw continuous land. Venegas says that with "a spy-glass" he traced the course of the Colorado to the gulf and recognized the mountains. Convinced of the continuity of land between Sonora and California, and assured also by the Indians of different tribes assembled around him (about five hundred in all), Kino yielded to the necessity forced on him by the sickness of his companions, as well as want of provisions, and returned home.

Though highly pleased, Salvatierra was not entirely satisfied with a conclusion based on a distant view. He required practical proof. Nothing less than actually walking around the gulf on dry land would thoroughly settle the question. The Fathers therefore proposed to set out from Kino's mission Dolores, in Sonora, walk around the gulf, and down on its western side to the mission of Salvatierra (San Loretto), in California. Salvatierra joined his companion at Sonora, and both set out on this expedition from Dolores on the 1st of March, 1701. Taking a route different from the one traveled by Kino previously, they did not go as far north as the Gila, but turned westward to follow the shore of the gulf, and reached a sandy, waterless desert, in which the party suffered with heat. They were obliged, therefore, to content themselves with a view of the shores from an elevation of the Sierra de Santa Clara, a mountain range, where the party assembled, and from thence saw the coast of California, the narrow northern end of the lake, and the mouth of the Colorado, after which they returned to Dolores.

At the end of the same year, 1701, Father Kino again went north and followed the Gila and Colorado to avoid the sandy desert. He passed down the Colorado, landed on the western shore, and in the country adjacent found only wide plains and saw hills in the distance, but no appearance of any prolongation of the Gulf. The Indians told him of the ocean, and showed him shells from the "contra costa," which, they said, could be reached in ten days' walking. Kino wished to make a journey to Monterey and also to Cape Mendocino, but being unable to cross the Colorado with horses and mules he wrote to Salvatierra from the western side of the river, and sent the letter by an Indian, trusting that it might be forwarded to San Loretto.

In 1702 Kino made the last of his excursions, and was then accompanied by Father Martin Gonzalez. Again he reached the junction of the Gila and Colorado, and from thence passed along the eastern shore of the last-named river, and reached its mouth, which until then Kino had only seen from afar. There many friendly Indians from the western side gathered around him, described their country, its rivers and mountains, and stating the distance to the ocean, invited him to visit their settlement. But Kino was again prevented from going westward. His companion, Gonzalez, fell sick and died, and was buried on the road. Occupied with missionary duties elsewhere, Kino was unable afterwards to visit the northern end of the gulf. He died in 1710 and Father Salvatierra in 1717, leaving unsettled the question in regard to the continental character of California.

JUAN UGARTE, 1721.

The Gulf of California had been partially examined. Its shores had been looked at from the mast of some distant vessel, but the indentations were scarcely known.

The first traveler who gave particular attention to such details was the Father, Juan Ugarte, who, in 1721, built two small vessels and sailed on the 15th of May from the Bay of San Dionisio

de Loretto. With the crews were several who had passed through the Strait of Magellan, and also an able and intelligent pilot, Guillermo Estrafort.

Sailing north along the eastern coast of the gulf this party closely examined the shores, corrected the errors of early maps, and after encountering dangers and difficulties reached the mouth of the Colorado early in July. In the middle of that month they turned back, and on the home voyage surveyed parts of the eastern and western shores of the Gulf. In September, 1721, they arrived at the port of San Loretto, and there announced that between the Peninsula of California and the Province of Pimeria there was no water excepting that of the Rio Colorado.

Father Ugarte wrote an account of this expedition and appended to it the map of his pilot, Estrafort, which map, says Venegas, he considered the principal result of the undertaking, but neither the narration nor the map seem to have been published.

1732.

The Jesuits had for a long period manifested interest in the exploration of the interior of the peninsula and of what was then called "contra costa," or the seaward side of the peninsula. They, in fact, inherited the purpose of forming some settlement for the benefit of the returning Manilla galleons. Several "entradas" had been made, the first by Father Ugarte, after many difficulties, in the year 1706, when a tract of about 20 leagues was surveyed near the twenty-fifth degree of north latitude. A company, conducted by the same Father, in 1712 founded not far from the ocean (at about 26° north latitude) the mission of Purissima Concepcion de Maria, and surveyed part of the coast. In 1719 Father Clemente Guiken led an expedition to the vicinity of 24½ north latitude, and examined Bahia de Magdalena, which had been named by Vizcaino, and noted by him as one of the best protected ports in that region. In that neighborhood the mission of San Luis Gonzaga was established by the Jesuits. But the most interesting of the expeditions patronized by that order was accomplished by Sigismundo Taraval, in 1732.

Born of noble parents at Todi, in Lombardy, Taraval was well instructed. In the year 1730, and when in the prime of manhood, he arrived in California. The most northwesterly mission then maintained was at San Ignacio, near 28 degrees north latitude, the care of which was confided to Taraval, with directions to explore the region beyond and open the way for similar establishments. Putting himself at the head of a company of baptized and friendly Indians, he traveled six days and reached a bay, which he called Bahia de San Xavier, the latitude of which is not stated in the narrative. There he saw several small islands, distant 6 or 7 leagues from the coast; and after constructing a *balsa*, sailed over to one of them but found only birds. So he named the group "Islas de Aves," *i. e.*, Bird Islands. Another island, some leagues from these, in latitude about 31 degrees north, he named "Isla de Neblinas," or Foggy Island. In the interior of this last was a considerable mountain which Taraval ascended, and at a distance of 8 or 10 leagues saw a cluster of islands, which he named "Islas de los Dolores." Against the horizon other islands were seen at the north, which he supposed to be the Santa Barbara group, one of which had been called "Isla de Santa Catalina" by the navigator Vizcaino. There is little doubt that the "Dolores" mentioned by Taraval were the Coronados Islands.

On the map of North America, in the third volume of the History of California by Venegas, these islands are put down in latitude 32 degrees north, and are marked "Islas de los Dolores, reconocidas por el Padre Sigismundo Taraval en 1732."

The bay named by Taraval "Bahia de San Xavier" is not indicated on this or on any other map. Probably it is the small bay now known as San Diego Harbor. Venegas says that Vizcaino passed, perhaps in the night, from the harbor of San Diego to the Bay of San Xavier, and then discovered near this bay the island of Catalina.

After Taraval no Jesuit missionary went so far north of Mexico. "We wished very much," says Venegas, "to found missions on the islands of the Santa Barbara Channel, seen by our father, but the distance was too great, and we had still too much to do in our immediate vicinity."

1746.

An expedition similar to that of Ugarte in 1721 was undertaken by Father Fernando Consak, a native of Bohemia, in 1746. With four canoes, he started from the bay of San Carlos (latitude

28 degrees north) on the 9th of June. His undertaking closely resembles that of Ugarte, both in regard to route and as respects the conclusions. Consak explored the coasts, bays, inlets, and islands along the eastern shore of Lower California, and on the 11th of July arrived at the mouth of the Colorado. He tried to ascend the river with his canoes, but the current was too strong for his oarsmen to admit of any considerable advance. He surveyed, however, on the return some parts of the gulf, and constructed a map, of which Venegas gives a copy in the third volume of his History of California.

1766.

As no one had actually walked round the northern end of the Gulf of California, some doubt remained. To settle the matter finally, Father Wiuceslaus Link was sent, in 1766, to go by land through the peninsula toward the Rio Colorado. He was then in charge of the mission of *San Borgia*, then the most northerly establishment of the Jesuits. The journey was commenced with sixteen Spanish soldiers and one hundred Indians. After a weary march they reached a point 20 or 30 leagues from the Colorado, and there his Indians were all sick; his horses and mules died, and the soldiers were so much dispirited that Link was obliged to retrace his steps. As far as could be seen, however, he discovered only sandy plains about the north end of the gulf, and like those who preceded him, it was reported to be landlocked. From his time Lower California has been universally known as a peninsula. A few years after this the Jesuits were forced to leave the country which they had explored, cultivated, and peacefully governed. For some years an opinion prevailed in Europe that the Jesuits had in California and in Paraguay, powerful and populous empires, and that enormous wealth had been derived from their gold mines and pearl fisheries. When therefore the dissolution of the order throughout the world was decreed, the viceroy of Mexico (in 1767) sent an armed force, under Don Gaspar de Portola, to California, with directions to seize the country in the King's name and assume jurisdiction as Royal Governor. The Jesuits were arrested at their several missions and sent to Spain. Some perished, and others, after much suffering, reached Europe. Portola was not resisted, but he found instead of the expected El Dorado, a very poor, rocky country, with only wild tribes of Indians, who had made under the guidance of the Jesuits, their first advances toward civilization.

Franciscan friars were substituted for the displaced missionaries, and the work of colonization inclined toward the far northwest. In the course of twenty-five years that region was rapidly developed.

RUSSIAN EXPEDITIONS.

The Jesuits, by their settlements and exploration of the peninsula and Gulf of California, laid a foundation for farther progress towards the northwest. Two European nations, the Russians and the French, advanced from opposite directions to the same region. Their enterprises influenced the ideas of geographers, and moved the Spanish Government to make a final exploration of that part of the country.

A sketch will suffice to mark the discoveries made by Russians in their expeditions from Siberia. Cossacks had passed the Ural Mountains and commenced an easterly movement at the end of the sixteenth century. They traversed Siberia and arrived on the shores of the Northern Pacific by the middle of the seventeenth century. One of these named Deschnew, as early as 1646, sailed through Bering Strait, but left no detailed account of his adventures. Others followed, and by reaching the peninsula of Kamtchatka gave the Cossacks some notion of lands east of Siberia. There had been amongst them the rumor of an "eastern country or island," with large rivers and forests in which were fur-bearing animals. The enterprising monarch, Peter the Great, formed a plan for the exploration of the region, but his death not long afterwards devolved the execution of the scheme upon his successor.

In 1728 Capt. Victus Bering, chosen by the Emperor Peter for the undertaking, sailed from Kamtchatka and took a northeasterly course. He saw only the western part of the gulf which bears his name, crossed the strait dividing Asia from America (traversed by Deschnew),

and reached, at the sixty-sixth parallel, a promontory which he believed to be the most northern headland of Asia. From that point he returned home.

In the time of the Empress Elizabeth (1741), a more important expedition moved, under command of the same Bering. With two ships, one in charge of Captain Tschirikow, a Russian, he sailed from Kamtchatka in a southern and eastern direction. The vessels were soon separated by a storm, but both reached the coast of America, though at different points. Bering made land under 60 degrees north latitude in the neighborhood of a large mountain, called since his time Mount Saint Elias, and Tschirikow at 56 degrees north latitude touched on one of the islands now known as the Prince of Wales Archipelago; but neither of the commanders could go farther. Their crews were sick and their means of subsistence exhausted. On the home voyage they saw some of the Aleutian Islands. On a small island west of them Bering was wrecked and died, but his crew and Captain Tschirikow's returned safely to Kamtchatka before the end of 1741, bearing the news of their discoveries to Europe.

The operations last mentioned resulted in the introduction of a new fur-bearing animal, the sea otter, which soon became one of the chief inducements for future expeditions and explorations in the northwest. On the island where Bering died his crew killed many of these animals, and in China sold the skins at large prices.

The Russian Government did not at once follow up the geographical discoveries of Bering, but enterprising individuals fitted out private expeditions to hunt the otter. None of these reached the coasts visited by Bering and Tschirikow, but they explored the Aleutian Islands and brought home some sketches and maps.

In 1764 the Russians occupied the peninsula of Aliaska, on the continent of America, mistaking it for an island, and formed different trading establishments and hunting stations. At length these attracted the attention of the Russian Government, and induced an official investigation in regard to their extent and connection with other countries.

By order of the Empress Catharine II, expeditions were dispatched about the time of the expulsion of the Jesuits from California, and the substitution of more active explorers (the Franciscan missionaries) to fill places vacated by that religious order. The first was sent in 1766–'67, under command of Lieutenant Synd, and the second in 1768, in charge of Captain Krinitzyn and Lieutenant Lewashoff. But these navigators failed in attempting to reach the latitudes attained by Bering and Tschirikow. They effected nothing except a little improvement in the knowledge of the position and condition of the Aleutian fur islands. The attention of the Spanish Government, anxious to preserve and defend its old pretensions to the possession of the Pacific, was excited by these movements. They were regarded as invasions of Spanish California.

FRENCH EXPEDITIONS.

The expeditions of the French, sent out westward from Canada, and their discoveries, like those of the Russians, could not but influence the views held in regard to the nature and configuration of the northwestern coast. On the Saint Lawrence the French were told of a great expanse of water at the westward, and they supposed it to be the Pacific Ocean, as, according to opinions then prevalent, the continent was not of very great breadth. The first English settlers in Virginia believed that beyond the Alleghany Mountains there was a large sea, supposed by some to be the Pacific, by others only a bay or branch of the Gulf of Cortes (Californian Gulf), and that supposed sea is marked on some of the early maps of Virginia.

The French had found that the so-called "Great Sea" was merely a series of lakes. In 1673, by passing the Mississippi they disproved also the supposition in regard to the proximity of the Pacific. Its coast was, however, in imagination, removed only so far west as was made needful in representation by positive evidence. It remained a favorite idea with the Canadian, French, and Virginian English that the continental breadth was not great, and at each step westward they expected to find water courses running in that direction.

In the year 1683, soon after the discovery of the Mississippi, a French traveler, the Baron Lahoulan, while exploring the river "Moingona" (perhaps the Minnesota), met some Indians who told him of a river running westward. One of them painted upon a buffalo skin a map of the

river with its mouth opening into a large expanse of water; and on the shores of that expanse were towns and trading vessels. This story is like the vision of the Spaniard, Coronado, who also saw salt water at the west, with great gilded trading ships. Lahonlan brought home a map, and we see in consequence on French publications of that day a great western river not far from the Mississippi, and in addition the shore of a broad stretch of salt water, but whether intended for a large inland lake (Utah?) or part of the Californian gulf, or the Pacific itshlf, cannot be decided.

In 1721 Charlevoix, a French Jesuit, went down the Mississippi, and was told by Indians near the mouth of the Missouri that they had been westward and found its source in very high mountains, on the other side of which was a stream flowing towards the west. A similar but more circumstantial account of this western river was given by an Indian to Du Pratz, another French traveler, in 1735. He called it Tacoutche Tessee, and said he had traveled from its source to its mouth, or as far down as the great water towards the setting sun. Amongst Indians on the upper waters of the Missouri some French voyagers saw sea-shells, which had probably come from hand to hand over the Rocky Mountains to the valley of the Mississippi, and these were considered as sure indications that an ocean existed in the west.

In the northwest the French discovered and traced the river of the Assinaboines and the Saskatchawan, obtained some knowledge of the Rocky Mountains, and also heard again of the "Great River of the West."

Amongst the travelers in that region was the Chevalier de la Verenderye, a man of enterprising spirit, who, with his sons, manifested steady interest in geographical development, but it is not probable that he actually reached the mountains. He went far in that direction, and pictured them on his map, as also the river of the west, which is represented as an outflow of Lake Winnipeg. The French map-makers who followed his indications, as, for example, N. Bellin, in 1743, not only sketched the river, but added some parts of the coast of the Pacific, which they adopted as the western boundary of La Nouvelle France, or "Canada." Opinions respecting the mouth of the river were as various as those held in regard to the source. Some thought that it led to the harbor of San Francisco, where two western rivers do in fact join their waters. Others supposed it to flow in the opening seen by Martin d'Aguilar, and some had in view an outlet towards the Strait of Juan de Fuca.

The English traveler Carver, who, like Verenderye, set out intending to reach the Pacific, says: "The river Oregon, or River of the West, falls into the Pacific Ocean at the Strait of Anian." Müller, the able German historian of Russian discoveries, says: "According to my opinion, the much spoken of Great River of the West falls into the ocean opposite either to Kamtchatka or the country of the Tschuktschi."

Spaniards showed on maps of the country northwest of Mexico some large rivers, but the directions are marked as uncertain. Their names are Rio Dolores, Rio Buenaventura, Rio San Felipé, Rio Los Monges, and others. Some believed these to be independent streams, but others supposed they were branches of one large river, probably the Oregon, mentioned by Carver, or, as named by the French, "Rivière de l'Ouest."

The French lost control in Canada before their explorations could be extended from the Saint Lawrence and Mississippi towards the Pacific. Others completed the work, as will be mentioned hereafter. Neither the expeditions of the Jesuits nor those of the Russians or French at this period reached the middle of the northwestern coast of America, though many speculations and hypotheses were started by them. There remained an immense tract as little known in 1750 as it had been at the beginning of the seventeenth century. Before alluding to further operations, two enterprises of this period will be touched on, namely, the apocryphal discoveries of the so-called Admiral Fonte, and the expedition to California under the astronomer Chappe.

The so-called voyages and discoveries of Admiral Fonte have no historical foundation. Before the year 1708 no one had heard of such a person. Then it was for the first time mentioned that he had made important discoveries in the year 1640. When first told the story gained little attention, but in 1750 the two eminent French geographers De l'Isle and Buache declared their belief and brought the details before the Academy of France, and the story attracted much attention. Even the Spanish Jesuits in California occupied themselves towards the close of their tenure

with the subject. It seems proper, therefore, to mention it, which may be done briefly, as Venegas, the annalist of the Californian Jesuits, gives a treatise on De Fonte in his third volume.

Of De Fonte's pretended discoveries none but that of the Rio de los Reyes was ever deemed plausible.

In 1708, without signature or mention of authority, an English periodical, "The Monthly Miscellany or Memoirs of the Curious," contained an article entitled "A Narrative," in which a certain Admiral Bartolome de Fonte or Fuente relates that he was sent by order of the King of Spain and the Viceroy of Peru, in the year 1640, to make discoveries on the northwestern coast of America; that he had sailed in furtherance along the coast of California, and reached, at about 53 degrees north latitude, the mouth of a great river, which he named Rio de los Reyes, and opposite to this a large archipelago, which he called "San Lazaro." He further states that he entered the river and passing northeast discovered lakes, channels, and other waters, to each of which he gave a name, and at last leaving his vessel in one of the lakes he traveled overland to Hudson's Bay, where he found a ship from Boston in New England. The narrative adds that while De Fonte was on his extraordinary journey, one of his officers made at the north similar discoveries of channels, lakes, and passages from the Pacific into the northern waters, that he had given names to all of them, and described each of them minutely in his report to the Admiral.

The fiction here mentioned would not be worthy of notice if such intelligent men as T. N. de l'Isle and Philippe Buache had not brought the matter before the Academy of France, and declared their belief in its authenticity. English writers have made it probable that the story was furnished by Mr. James Petiver, the naturalist, whose taste and talents for such productions were well known. When eminent French geographers issued a map showing the pretended discoveries of De Fonte, of course they had imitators. Jefferys, Brouckner, and Bernouille, among others, adopted the whole or part, copied the map, and gave the names "Archipelago de San Lazaro," "Rio de los Reyes," and others, thus perpetuating the fable and promulgating it to the world.

1769.

The voyage of the astronomer, M. Chappe d'Auteroche, was one of several made to different parts of the globe for the purpose of observing the transit of Venus which occurred on the 3d of June, 1769. The French Academy was at the head of the enterprise, and wished to have observations made on one of the Spanish South Sea Islands, but permission being refused, the peninsula of California was chosen instead, and there the court of Spain was willing to lend a helping hand. So a combined expedition was arranged, of Spanish and French observers, and the direction was given to Chappe, who had previously made a voyage to Siberia in the interest of astronomy. For the observations of 1769 he was amply provided with astronomical and mathematical instruments, and he was accompanied by a French geographical engineer and a watchmaker. Two Spanish astronomers, M. Doz and M. Medina, joined him at Cadiz on his way to the New World.

The party expected to sail in one of the ships of the great Spanish fleet destined for Vera Cruz, but its departure being deferred from week to week, the time for the transit of Venus drew so near that a vessel was hastily made ready, and they sailed to Mexico and in a miserable condition landed on the 8th of March, 1769. With a caravan of mules the instruments were transported to the harbor of San Blas, and after long detention by calms and high winds the party reached the shore of the peninsula of California at a point near the mission of Saint Joseph, where, having some time left, they erected observatories in barns and under tents.

Favored by serene skies, M. Chappe had the good fortune to record a series of satisfactory observations on the transit and noted other astronomical phenomena, amongst which was a lunar eclipse and the immersion of one of Jupiter's satellites. All these and an interesting narrative of the expedition were made known to the scientific world by Cassini. The preparations of Chappe had been methodical, and his observations were made with scrupulous exactness. The Spanish astronomers pursued their operations separately. From all the observations the geographical position of San Joseph proved to be 23° 3′ 20″ N. and 112° 2′ 30″ west of Paris. But the best Mexican charts of that time varied much from this result, differing as much as three degrees in longitude and more than a degree in latitude.

According to calculations resulting from the observations of Chappe, Western America was found to be nearer to Europe than previous estimates by about four degrees of longitude. The result became a standard for all subsequent surveying operations. In 1793, when Vancouver finished his survey of the northwestern coast, he repaired to Cape San Lucas and the vicinity of Saint Joseph, in order to compare his results for position with those obtained by Chappe in 1769. While the last-named observer was engaged on the peninsula a malignant epidemic raged. He died there, as did several of his companions—his watchmaker and the Spanish astronomer, Don Salvador de Medina. In fact, the entire party of learned men assembled near Cape Saint Lucas became seriously ill. Those who recovered fled from the fatal shores, regardless of intended explorations for the benefit of geography and natural history.

The British Government sent out Captain Cook in the year 1768, accompanied by the astronomer Green and naturalist Solander, to observe the transit at a station on the island of Tahiti, and this was the first of a series of Pacific voyages which, ten years later, brought Cook to the northwestern coast of North America.

FRANCISCANS AND VANCOUVER, 1769–'92.

Fear of the progress of the Russians in the Pacific, the expulsion of the Jesuits from California, and the zeal in missionary work evinced by their successors, the Franciscan friars, awakened activity which was not again interrupted until the coast was thoroughly explored. Year after year one expedition followed another, European nations concurring, and at the end of the century nearly all the "mysteries of the west" lay open before the world.

Alarm at Russian progress had drawn the Spaniards to the northwest, and they had previously moved northeast (on the American continent) in consequence of the advances of the French. To check these in the valley of the Mississippi the Spanish sent expeditions which resulted in the settlement of western Texas. In 1762 they acquired from France the cession of the western half of the Mississippi country, and detachments of Spanish dragoons, missionaries, and tradesmen from New Mexico went sometimes as far north as the fiftieth parallel. At this time they seemed willing to take possession of a continent conferred on them by a Papal bull at the end of the fifteenth century. But this was merely as the last brightening of a flame before its extinction.

The Marquis de Croix, Viceroy of Mexico, who, in 1767, ordered the expulsion of the Jesuits from California, and gave their missions and settlements to the Franciscans, directed the latter to advance towards the northwest. Warmed by the triumph over their rivals, the Franciscans manifested great zeal. An enterprise was planned by their superior, Joseph de Galvez, with the approbation of the Viceroy, who was, however, succeeded in office by Don Antonio Maria de Bucarrelli in 1771, a man not less active in promoting geographical exploration and missions. By the exertions of these men was carried into effect, in the course of six or eight years, the long desired settlement, cultivation, and exploration of what the Jesuits had called the "*Contra Costa.*"

The history of the labors and sufferings of the Franciscan friars and their companions is highly interesting. The aims and results at which they arrived served an important end in advancing the hydrography of the coast. Peaceful and comparatively strong, the missions became fulcrums of civilization in that region and desirable supports for subsequent northwestern voyages.

Spanish explorers returning exhausted, as also English, French, and other nationalities, relied on these establishments. Vancouver would probably have perished but for the succor afforded by the Franciscans in California, and the Russians relied on them for provisions. Agents of the Hudson Bay Company traveled from the Columbia River for supplies. In short, these missions were the basis of empire. Without them the United States would have found it much more difficult to establish government in that part of its territory. All American travelers in the beginning of the present century repaired to these hospitable settlements, as the mariners, the Russians, and the Canadians did, asking for bread and for succor when exhausted; and many doubtless would have perished if the Franciscans had not previously dotted the coast line with cultivated patches, cattle, peaceful Indians, and homes. It would be interesting to follow the history of these missions, but our main interest here relates to the land and sea expeditions by which they were established.

MISSIONS, 1769.

It was concerted between the Viceroy and the Superior of the Franciscan convents (José de Galvez) that three missions should be founded, one at San Diego, another at Monterey, and a third midway between the two, both of which had been pronounced by Vizcaino, a hundred and fifty years earlier, as well adapted for the intended purpose. The middle station was called San Buenaventura.

Two expeditions were to be sent out at the same time, one from the peninsula, by land, the other by sea from San Blas. Galvez himself superintended the arrangements for both. The land expedition was to conduct the principal missionaries with soldiers and cattle, lay out a road, and begin friendly intercourse with the Indian tribes on the way. This was under command of Don Gaspar de Portola, the captain of dragoons, who had been charged to expel the Jesuits from Lower California. He was supported by other officers, some soldiers, and several missionaries, under the supervision of Father Junipero Serra, who was constituted president of the new missions. They set out in two divisions, the smaller an exploring party under the conduct of Don Fernando Rivera and Moncada going in advance. The principal body, commanded by Portola, followed on the 15th of May, 1769, from the Mission de San Fernando en Velicata, the most northern settlement in Lower California. This had been founded only a short time before their departure. The track of the old Jesuit traveler, Father Wenceslaus Link, was followed to the neighborhood of the Colorado. From thence, taking a northwesterly direction, they arrived on the 1st of July, 1769, after forty-six days' travel, at the shore of a bay recognized by them as the harbor of San Diego, according to the old maps and charts, and there they found the sea expedition at anchor.

The sea expedition was intended to aid that on land by carrying out more soldiers, provisions, and implements. They were also to survey, or, as that operation was then expressed, "register the coast" (a tracer el registro de la Costa). For this purpose three ships were fitted out from San Blas: The San Carlos, San Antonio, and San Joseph. The principal vessel carried Don Vicente Vila, commander-in-chief of the expedition, and the second, Capt. Don Juaz Perez, who was afterwards one of the most active among the explorers and navigators of the northwestern coast.

The three ships sailed on separate days. Perez, in the San Antonio, arrived at San Diego Bay on the 11th of April. The San Carlos started more than a month earlier, but was a fortnight behind the San Antonio, the captain of the San Carlos, judging from "the indications of the old maps" that the port of San Diego was between 33° and 34° of latitude, but he found it at 32° 40′ He lost, therefore, much time, and did not discover his error until his crew was much wasted by sickness, hunger, and fatigue. Some of the crew died on this voyage. The third vessel (San Joseph) was never seen or heard of after sailing. The members of the two expeditions rejoiced in being united, but as a voyage to Monterey was out of the question, the San Antonio was manned, and Juan Perez sailed in that vessel on the 9th of July from San Diego southward to procure provisions and hands.

When the ships were found unavailable, and the San Antonio had sailed homeward, Portola determined to march northward, moving on the 14th of July, 1769, in search of Monterey. Part of the company was left at San Diego with Father Junipero Serra to form the intended settlement and mission and to negotiate with the surrounding Indians. He started with some soldiers and missionaries, including Friar Juan Crespi, the journalist of this and other Franciscan expeditions, and traveled slowly along the coast, accompanied by a train of mules and many friendly Indians. Passing the Sierra of Santa Lucia, they came in sight of the harbor of Monterey on the 1st of October. Men were sent to reconnoiter the bay, but could find nothing answering the description of the port of Monterey as given by the pilot, Cabrero Bueno, which was their only guide. The open bay they thought could scarcely be called a "port," and if Monterey was to be found they must look for it farther north. Portola was very anxious, as he hoped to find there the San Joseph, of the loss of which vessel he was yet ignorant. He therefore continued his march northward, though many of his followers were sick with scurvy; and thus "they turned their backs on the very port they were in search of."

On the last day of October they were within sight of the Farallones off San Francisco entrance, "the signs of which, being compared with the remarks of the pilot, Cabrero Bueno, were found to be exact." They were then convinced that they had left Monterey to southward, and on the 11th of November they turned in that direction and reached the bay, some of the party now believing it to be Monterey. There they remained until the 10th of December, waiting for the San Joseph, but no vessel arrived. The Sierra of Santa Lucia was already covered with snow, and Portola kept on towards the south. It seems probable that once during this expedition the party was on the shore of the harbor but could not identify the place. They arrived at San Diego on the 24th of January, 1770, after more than six months of travel and trouble, having been driven by hunger to eat their mules and horses on the way. Some of the party reported that the harbor of Monterey had probably been changed since the time of Vizcaino, as the spot so named on his map had been found filled with sand hills.

The ship San Antonio returned, as before related, to Mexico, and reached San Blas towards the end of July, 1769. From thence it was again dispatched, under command of Juan Perez, early in the year 1770, with provisions to Monterey, where it was supposed the land expedition had meanwhile arrived. But on touching at a point on the Santa Barbara channel to procure fresh water, Perez was told by the Indians that the expedition had gone back to San Diego, and having lost an anchor which he hoped might be replaced there, he was induced to steer for that harbor, and reached it on the 23d of March, barely in time to save the enterprise, as Portola and his party, destitute of any means of subsistence, had fixed upon that very day to go south and abandon the attempt at settlement.

When the two branches of the expedition united at San Diego with replenished means they agreed to set out again for Monterey. Perez sailed in the San Antonio on the 16th of April, 1770, accompanied by Father Junipero Serra. They were forced back by storms to the thirtieth parallel, where they found more favorable winds, and after six weeks of tedious navigation they entered Monterey on the 31st of May, being as far as we know the first Europeans who did so in a period of one hundred and sixty-seven years which elapsed after the visit of Vizcaino.

Portola and his party, including Father Crespi, the journalist of the expedition, left San Diego the day after the San Antonio sailed. They reached Monterey, where the vessel awaited them, and the reunited missionaries founded there the mission of San Carlos de Monterey, or the Royal Fort of San Carlos. Names were given at this time to some small rivers, valleys, and other places, but they are not all mentioned in the narrative of the expedition.

Early in August, 1770, the action at Monterey became known in Mexico, and the joy of the authorities there was such that they ordered a general ringing of the bells and a great festival. Mass was celebrated and a procession formed in which the Viceroy and all the tribunals joined. A proclamation was printed and distributed, giving a short description of the travels and discoveries of Portola and the missionaries, and announcing that the dominions of the King of Spain had been extended 300 leagues along the coast towards the north.

Perez had sailed from Monterey in the San Antonio on the 9th of July, 1770, to return to Mexico and bring from thence provisions. On reaching San Blas he gave intelligence of the proceedings at Monterey. From San Blas he was again sent, early in the year 1771, to Monterey, and there arrived with ten other missionaries on the 14th of April. On the 7th of July, 1771, he went to San Diego with dispatches, and from that place returned to San Blas with invalid missionaries.

Father Junipero Serra occupied the time after his arrival at Monterey by making excursions into the adjacent country, visiting Indian tribes, and seeking convenient sites for missions. Every mission thus founded was combined with previous explorations, and served also for extending geographical knowledge. Serra explored the valley of the Rio Carmelo near Monterey, and transferred to that valley his mission of San Carlos, the first position of which was further northeast. With other friars he visited the Sierra de Santa Lucia, and there settled the mission of San Antonio de Padua. He celebrated mass on the 14th of July, the day of San Buenaventura.

The mission of San Gabriel was established at the end of the summer of 1771.

Having somewhat advanced towards the south the chain of missions and settlements by which he intended to connect Mexico and Upper California, Father Junipero turned his attention to the

north. An expedition in that direction was agreed upon with the military commander Don Pedro Fages, who with some soldiers and the friar Crespi started from Monterey on the 20th of March, 1772. The latter wrote a journal of the expedition which shows that the enterprise was very unfortunate. Part of the country was surveyed, or "registered," when the work was interrupted by a report from San Diego of famine and sickness, and the contemplated abandonment of that port. The party consequently returned as soon as possible.

After returning with the invalids to San Blas at the end of the summer of 1771, Perez was again employed, early in the following year, to carry provisions to Monterey; but the bad condition of his ships and unfavorable weather made it impossible to attempt the passage around Point Conception. Instead, therefore, of making his destined port he carried the provisions to San Diego, which settlement, on the brink of ruin, was thus saved by him a second time. Information was sent to Father Serra in Monterey of the arrival of these supplies, and a request that they should be sent for by land, because of the difficulty and danger of water transportation; but the father, though now old and somewhat infirm, journeyed in person to the latter place and persuaded Perez to trust in God, notwithstanding the bad season, and attempt once more the voyage to Monterey, as the station must be abandoned unless the much needed provisions should soon arrive. Yielding to the promptings of Serra's faith and zeal, Perez again set sail, arrived in safety, and after landing his cargo returned to San Blas.

In 1772 Father Junipero founded the mission of San Luis Obispo de Tolosa at the south of Monterey; and after visiting the other missions resolved to return to Mexico for conference with the new Viceroy, Don Antonio Maria de Bucarelli, who had succeeded the Marquis de Croix, the former patron of Serra's enterprise, and who was supposed to be unacquainted with the importance of western missions and explorations. Junipero explained to the Viceroy the political importance of the missions, found ready audience, and procured all the aid desired.

Perez was sent out again with supplies, but his voyage was unfortunate. Driven by storms to the peninsula he was constrained to unload his vessels, and the friars and soldiers dependent on him for supplies elsewhere suffered greatly from hunger.

DON JUAN BAUTISTA ANZA. 1774.

At the request of Father Junipero, the Viceroy of Mexico had also sent an order to the commander of the northern frontier of Sonora to fit out an expedition for Monterey, and to trace an overland route in that direction, so that missions might not be entirely dependent on weather, communication with Mexico up to that time having been either by sea, around Cape San Lucas, or half way by land to Velicata and San Loretto in Lower California, and from thence by water.

Anza traveled with soldiers, cattle, mules, and provisions from Sonora to the Rio Colorado, crossed that river and went through the country to the coast, and thence to Monterey. He arrived in April, 1774, having on the way traced out a new land route between California and New Mexico through Sonora.

Partly at the suggestion of Father Junipero, the Viceroy was induced to furnish a larger expedition. The Santiago, a new ship, was fitted out and placed under the command of Juan Perez, bound to San Diego and Monterey, from whence the captain was to proceed to higher latitudes. In this ship, which sailed from San Blas on the 24th of January, 1774, Father Junipero returned to his mission. Landing at San Diego he traveled to Monterey, and arrived there on the 9th of May. On the road he met Anza, who was then on his return from Sonora. Perez also touched at Monterey and discharged supplies before going further north. His voyage to Nootka Sound was undertaken at the suggestion of Father Junipero Serra, and Perez was accompanied on it by two Franciscan friars, namely, Juan Crespi and Tomas de la Peña, so it may be considered as a branch of the Franciscan expeditions. Crespi and Peña jointly wrote an account, but no statement was ever made public by the Spanish Government. The particulars remained unknown during the last century. Some vague reports induced the insertion of the following remarks on maps: "The Spaniards are said to have made in 1774 an expedition as far as 55° N. L." Navarrete was the first who gave additional information in regard to this undertaking. The journal of Crespi and

Peña was made known to Humboldt in Mexico, and is mentioned in his Essai Politique, second edition, Paris, 1827, Vol. II, p. 296.

The founding of missions at San Diego and Monterey not only occasioned voyages, but contributed to their success. Mariners for such service were trained by associating with intelligent men, and the officers who commanded transports and provision ships also conducted explorations in the northern regions.

Perez after discharging his cargo at Monterey fitted his vessel for duty in high latitudes, and set sail for the north on the 6th of June. He seems to have taken at the outset a western course into the Pacific, but turned northward and again saw land in 53° 53′ north latitude, which, if the reckoning was true, must have been part of Queen Charlotte's Island. At 54½° north he reached a cape and an island, and to the last applied the name Santa Margarita.

What is known as Dixon's Strait was at a much earlier date called by Spaniards "*Entrada de Juan Perez.*"

On his way southward Perez saw various parts of the western coast, but his principal discovery was the harbor of San Lorenzo, in latitude 49° 30′ N., afterwards visited by Captain Cook and by him named Nootka Sound. Perez had some trade with the Indians, and Cook found traces in sundry articles of Spanish origin when he subsequently visited the place. The Spaniards doubtless saw some points of Vancouver's Island, and some writers suppose that at this time the entrance to De Fuca's Strait was first observed. What is now known as *Cape Flattery* was called formerly Punta Martinez, after the pilot of the San Antonio, whose name was Estavan José Martinez. On his way south Perez determined the latitude of Cape Mendocino, and arrived at Monterey on the 17th of August, 1774. He was soon afterwards again at San Blas.

This voyage may be considered fortunate, Queen Charlotte's and Vancouver's Islands being then for the first time touched on by Europeans. The Spanish Government kept long concealed the accounts and maps furnished by Perez, and subsequently English navigators were considered as discoverers of the places.

In the summer of 1774 Father Junipero Serra and the lately appointed military commander, Don Fernando Rivera y Moncada, started for the purpose of founding a mission on the shores of the Santa Barbara Channel. It was to be called San Juan Capistrano, and to be in charge of the Fathers Feronin Laznen and Gregorio Amurrio, who were sent out at the end of October to explore the country. They selected a convenient spot and founded the mission, the name of which is still retained by a little port on the coast. The completion of the establishment was, however, delayed by an Indian revolt which broke out in the neighborhood of San Diego. This prevented further attempts for the settlement of missions by Father Junipero through the following year, 1775.

SONORA—SAN DIEGO. 1775.

A journey was made in 1775 by a Carmelite friar, Francisco Garces, and thereby another way of communication was opened towards the interior. Father Garces traveled from Sonora through the Colorado country, saw the southern end of the Sierra Nevada, and discovered in the interior of California, a river which he called Rio de San Felipe (perhaps the upper part of the San Joaquin), and passing on to San Diego he returned from thence to Sonora. Several journeys were made by the friar. This mention of his California excursion is in accordance with a map made by M. Mascaro, and in 1782 published in Arispe. The map has on it the route of Garces, as well as that of Don Juan Bautiste de Anza. This last-named traveler, after returning to Mexico, made in 1775 a second journey to California, taking with him soldiers and settlers, horses, mules, and cattle. On the 29th of September he set out from the Presidio San Miguel, in Sonora, and arrived at the mission of San Gabriel on the 4th of January, 1776.

NORTHWESTERN COAST, 1775.

Soon after the return of Perez, the viceroy of Mexico, Don Antonio de Bucarelli y Orsue, animated by this first success, ordered the fitting out of two vessels, the Santiago and the Sonora, for another expedition, which was put under command of Don Bruno de Heceta. He sailed in the

first named ship, and for the command of the second assigned Don Juan de Ayala, assisted by Don Juan Francisco de la Bodega y Quadra. Antonio Maurelle served as pilot and afterwards wrote an account of the expedition. Perez, who conducted the enterprise of 1774, as also some others, lost his life in this undertaking. Both of the ships sailed from San Blas on the 16th of March, 1775, with orders to proceed along the northwest coast as far as the sixty-fifth parallel if possible. On the first part of the voyage they were accompanied by the packet San Carlos, which vessel was bound to Monterey and San Francisco in charge of Don Miguel Maurique. But unfortunately that officer was seized with insanity a short time after he left San Blas. The command of his vessel was given to Ayala, and Bodega took the place of the latter in the Sonora. Thus Bodega became prominent in the expedition. Ayala, by taking the San Carlos into Monterey and San Francisco, was separated from it, and at that time made the first survey of the bay of San Francisco.

After separating from the San Carlos, the two remaining ships sailed to the northwest and had on board for information the history of California, by Venegas; also a map of the French geographer, Bellin, which "was found very unreliable and fanciful." They had also the chart made by their predecessor, Perez, who accompanied them on this voyage.

On the coast north of Mendocino they found a small harbor in 41° 07′ north latitude, which they entered on the 5th of June. In the course of a few days they surveyed the harbor, and erected a cross on the shore, and named the harbor Holy Trinity. A river emptying into it was called by them Rio de las Tortolas, or Pigeon River, from the large flocks of those birds seen there.

They sailed further north, looking as they went for the inlet marked on their map as De Fuca's Strait, and reached the coast in latitude 47° 24′ north, where a party from the crew of the Sonora was sent on shore for fresh water. They were attacked by the natives, and seven of the crew were killed. The savages appeared to be numerous; the landing was difficult; hence the murder was not avenged, and keeping on to the northwest the unfortunate spot was named Isla de Dolores. On some Spanish maps the place is marked as Ensenda de los Martires (Inlet of the Martyrs); and is probably the locality afterwards and even yet called Destruction Island.

On the 1st of August, and when in about 50 degrees north latitude, the ships separated in very thick weather. After seeking each other in vain, Bodega and Maurelle, in the Sonora, resolved to sail northward, but Heceta, in the Santiago, despairing of success, turned back to the southward.

In latitude 57° 04′ north, Bodega saw a high mountain, and named it San Jacinto. The same was afterwards called by Captain Cook Mount Edgecombe. In latitude 55° 30′ north a spacious bay was named, in honor of the viceroy of Mexico, Port Bucarelli. Other localities were at this time named by the Spanish explorers in this neighborhood, but they are now of no special interest. The highest latitude reached by Bodega was 58 degrees north. There his means were exhausted and he turned southward. On the 19th of September he was again in sight of the coast of California, in latitude 47 degrees north. Keeping on southward he reached an entrance in latitude 38° 18′ north, and supposed it to be San Francisco, but the great sea-mark, the Farallones, not being in view, his error became apparent to all in the party. A cape north of the port before him was called Punta de Arenas, and to the port itself was given the name Puerto de Bodega. It was now the 4th of October, and without entering at the Golden Gate, he passed on to Monterey.

The most interesting event of the expedition occurred on the return voyage. On the 16th of August Heceta saw the mouth of the Columbia River, but was unable to enter. Supposing it to be the mouth of some large river or strait, he called it the Bay of Assumption. On later maps it is named Entrada de Heceta, but on some Rio de San Roque, from the promontory north of it, to which Heceta had given the name San Roque. Both names are from the church calendar, that of the Assumption on the 15th of August and San Roque's the next day.

Heceta called the south cape of the inlet Cabo Frondoso, or Leafy Cape; but at this day it is known as Point Adams. He thought the opening might be the Strait of Juan de Fuca. Southward of this he saw another headland, and named it Cabo Falcon (now Cape Lookout), and continuing his course Heceta reached Monterey on the 30th of August. On the 7th of October he was joined there by the Sonora, and on the 20th of November both ships again anchored in the harbor of San Blas.

SAN FRANCISCO BAY, 1775.

The packet ship San Carlos, in charge of Don Juan de Ayala, a commander of the Royal Spanish Navy, after leaving provisions at Monterey for the uses of the missionaries, was directed to make a survey of the bay of San Francisco, for the convenience of other missions that by order of the Viceroy were soon to be founded.

Ayala arrived at Monterey on the 27th of June, 1775, discharged his cargo, and sailed promptly to determine (says Father Pal u) "whether the canal which had been imperfectly seen from a distance by the former land expedition was really an outlet to the sea or not." Nine days after leaving Monterey he found the outlet of the canal, which he called the Inlet of the Farallones; and the San Carlos passed safely through in the night. Thus, as far as can be now known, Ayala was the first European who entered San Francisco Bay. Perez in the preceding year had passed by, and the Franciscan friars on their land expedition, in 1769 and 1772, had merely seen the interior basin from the land side. Ayala reported the inlet of the Farallones as being "a Spanish league long and a quarter of a league broad, with strong currents issuing or entering, according to low or high water; and behind it a little Mediterranean Sea with two arms, one stretching 15 leagues to the southward, and the other 5 leagues to the north; and, again, beyond this he discovered the great bay 10 leagues broad, and another bay of a round figure [San Pablo Bay], into which empties the great Rio de Nuestro Padre San Francisco;" *i. e.*, the Sacramento River. Doubtless Karquines Strait was mistaken for the mouth of the Sacramento. He remained in the bay forty days exploring in a boat, and "registering" the large sheet of water. The Indians on shore seemed to be friendly.

After completing his "plan" of the bay, the entrance of which, according to his determination, was a few minutes below the 35th parallel, Ayala returned to Monterey, and reached port in the middle of September, 1775. Being asked whether the place visited was a good port, he replied that "it was not a port, but a cluster of ports," and that "many fleets could anchor there without seeing each other."

Ayala reported his researches to the Viceroy, and presented his map. As a result, great interest was awakened in Mexico, and activity in regard to settlements near a port having such manifest advantages.

Although this exploration by Ayala was one of the most important hydrographic achievements of the time, it was strangely overlooked by later historians. Navarrete does not mention it at all in reference to results, but merely says, "Ayala was the commander of the ship Felicidad (Sonora) and went with Heceta and Bodega to the north." Some writers record him as commander of that expedition. Greenhow corrects that error and states that Ayala had no concern with the northern expedition of Heceta and Bodega, having merely accompanied those explorers "a short distance from San Blas." But the last named writer does not mention the useful survey made by Ayala, which has been, as stated above, missed in the researches of historians generally.

The first land expedition from the south, which reached the bay of San Francisco, started from San Diego in 1769–'70. The second was undertaken in the following year, and proceeded from Monterey for the exploration of that body of water. The third expedition proceeded from the same place, and was conducted by Don Juan Bautista de Anza, who had made the journeys from Sonora to California.

On the 4th of January, 1776, Anza brought to Monterey the special order and instruction of the Viceroy for a survey of the bay of San Francisco, with a view of selecting the best sites for two missions, namely, one for San Francisco, and one at Santa Clara. In the following spring the service was performed. With the help of another officer and some soldiers a map was made from the land side, and positions were selected for the Presidio and missions. The party then returned to Mexico and reported to the Viceroy.

After his survey of the bay of San Francisco, Ayala returned in the San Carlos and arrived in Mexico at the end of the year 1775. Early in the following year the ship was dispatched to Monterey with provisions, and with it orders were sent for assisting in the foundation of the new missions. On the voyage the San Carlos was commanded by Don Fernando de Quiros, and arrived at

Monterey early in June, 1776, when Anza had just returned from his land expedition to the bay of San Francisco.

The land expedition, under command of Captain Don Josef Moraga, set out from Monterey on the 17th of June, accompanied by some Spanish families, soldiers, Indians, and cattle. The principal missionaries assigned to conduct the religious affairs of this northern station were, Father Thomas de la Peña, some of whose journals of the Franciscan expeditions are yet extant; Father Francisco Palon, who wrote a history of the missions; and the Father Pedro Benito Cambon. Some of the missionaries went with the land expedition, which reached its destination after a few weeks of travel, without any special difficulties. Others sailed in the San Carlos and were months on the voyage. By contrary winds the ship was driven back southward to the thirty-second parallel, and did not reach San Francisco until the 18th of August.

The parties began at once to build houses, magazines, forts, and chapels, and when the work was partly accomplished the commander of the San Carlos went out in a boat to explore the bay. He was on that occasion accompanied by Father Cambon. A small company was at the same time sent under command of Don Josef Moraga to walk around the bay, assist the boat party, and unite with it in the northeast at the mouth of the river.

On this occasion most of the points on San Francisco Bay received the names by which they are still known, as "San Pablo Bay," "Point San Pablo," "Point San Pedro," &c., but only a few are specially mentioned in the account of the expedition, and it is likely that they were named by Ayala. He was not, as Quiros was, attended by missionaries who would give religious names to places.

The land expedition went first to the southeast, passing around the shallow lagoon in which the bay of San Francisco terminates. At the southern end they found a river and called it "Rio de Notra Senora de Guadalupe." From thence going along the eastern shore of the lagoon until opposite to the harbor of San Francisco on the "Contra Costa," they saw in the mountains to the east an opening or valley which they thought might prove to be a short route to the point of rendezvous with the sea expedition, the mouth of the Sacramento River. In this, however, they were deceived. Losing their way, the party passed the mountains and came out upon a marshy plain crossed by several rivers, or river branches, and after traveling a short distance along what seemed to be the principal stream, they crossed it and marched northeast. But the plain seemed endless. They saw no inhabitants, and the heat was intense. The time for meeting the sea expedition passed by, and Moraga determined to return home. He thought that all the streams came from the southeast, and that their source was in the great "Tulares" (bullrush marshes) lying in that direction. It was the river Joachin along the lower reach of which they wandered—the first Europeans who saw its waters.

Captain Moraga and his company, on reaching the mission, gave an account of their journey. The boat party under Quiros advanced meanwhile to the northern part of the bay. They explored San Pablo Bay and entered the Strait of Karquines, which (as did also Ayala) they mistook for the mouth of the river Sacramento, and called it El Desembogue del Rio Grande. After it turned toward the east they found a port which had not been seen by Ayala. The same is now called Suisun Bay.

Father Palon, a witness of some of these events and the only historian who records them, does not say that the *mouth* of the Sacramento was reached on this occasion, or that a name was given to it. We may suppose that the party advanced as far as the junction of the Sacramento and San Joachin, or to what is now known as Sacramento Point. At this point the missionary, Father Cambon, "consecrated the waters," and the administration of the sacrament there suggested the name which was afterward applied to the river itself. On the map of San Francisco Bay, drawn at the time, the junction of the rivers, and also Sacramento Point, are accurately delineated, but no name is attached. Quiros explored the northern part of San Pablo Bay. On entering, he saw several small inlets and creeks, the largest of which he supposed might communicate with the ocean, but soon found "without any doubt" that the bay of San Francisco had only one outlet, and that the land on each side of the entrance formed peninsulas.

Quiros, in the San Carlos, returned to San Blas to report to the Viceroy, leaving Moraga and the missionaries to take care of themselves, construct their houses, till the ground, and civilize

the Indians. After this time Fernando Quiros served as an officer in the expedition under Arteago and Bodega in 1779, and was with them again in San Francisco Bay.

SANTA CLARA MISSION, 1776.

The successor of Portala in the military command of California was Don Pedro Fages. When that officer retired, in 1774, his place was filled by Don Fernando de Rivera Moncada, who, although concerned in plans for exploration, had not previously taken an active part for settlement and further discovery.

In the autumn of 1776 Rivera set out at the head of some troops to "register" the region in which it was desirable to found another mission, and marching north from Monterey across the plains of San Bernardino, he reached the southern end of the lagoon of San Francisco Bay at the river Guadalupe. The adjacent country was mapped by the party, and a site then selected for the mission was settled in January, 1777. On the same plain the Spanish village called El Pueblo de San Joseph de Guadalupe was founded, and names were assigned for the neighboring mountains and streams of water. In the following summer Don Felipe Neve became Governor of California, and founded the mission of Santa Clara.

1779.

The expedition of Heceta and Quadra in the year 1775 was considered successful, but it left some questions undecided, and amongst them the extent of the Russian settlements.

Bucarelli, Viceroy of Mexico and the court at Madrid, consequently decided upon another expedition, and two corvettes, La Princesa and La Favorita, were selected for the purpose. After much delay they sailed on the 11th of February, 1779. The command was given to Don Ignacio Arteaga, and Don Juan de la Bodega y Quadra. In the expedition of 1775 the last-named officer had command of a ship.

Sailing northward, the expedition of 1779 reached the latitude of Mount Saint Elias, after having made many observations along the coast between the fifty-sixth and the sixtieth parallels. Provided with Russian maps they advanced to the vicinity of Cook's River, where they seem to have been bewildered. According to La Perouse, the peninsula was supposed by them to be Kamtchatka, and an attack by Russian forces was dreaded. Moreover, many of the crew were sick. So, without reaching the seventieth parallel the vessels turned southward and entered San Blas on the 20th of November, 1779. An account of the voyage was written by Maurelle. La Perouse obtained a copy of the manuscript. The original is yet in the archives at Madrid, and a copy approved by Navarrete is in the library of the State Department, Washington, D. C., which contains also copies of several accounts of the same voyage.

Arteaga and Bodega as little knew of having been preceded in this voyage by Cook one year before as Cook did of the expedition previous to his own, made by Perez and Heceta.

In 1777 settlements extended as far north as the Bay of San Francisco. To the southward several links of the intended chain of establishments were not yet filled in. The coast of Santa Barbara channel had been only partially explored, though Father Junipero had long intended to found there three missions. Settlers, soldiers, and missionaries could not be immediately procured, but in the year 1777 orders were given in Mexico to recruit for that object, and about one hundred persons started for California under the direction of Don Fernando Rivera. Some delays occurred, but in the spring of 1782 Father Serra left Monterey and traveled south along the coast to the mission of San Gabriel. He there consulted with Don Felipe Neve, who had arrived as Governor in 1777, and they decided that the mission of Buenaventura should be at the eastern extremity of the channel; that of Purisima Concepcion at the western end, and Santa Barbara between the two. On the 26th of March they started from San Gabriel, and were traveling when the Governor was recalled by urgent business. Serra kept on, however, to a site called, (Palon says) since the first expedition in 1769, Assumpta, or Asuncion de Nuestra Señora, where he found an Indian village in latitude 34° 13′ N.; and by erecting some houses and a chapel he founded the mission of San Buenaventura.

Neve rejoined the expedition, and leaving some soldiers to protect the new establishment, he marched westward towards the coast, attended by Father Serra. The shore was "registered" (*i. e.*, mapped), and was closely examined with reference to facility for anchorage. Ten leagues from San Buenaventura they found a small bay, which seemed to promise good anchorage, and on the shore they erected a cross and built a small Presidio or fort.

The Governor judged that the mission could not be safely established until the fort was complete. He therefore returned to San Diego, and Serra to Monterey. Some soldiers and a priest were left at the station, which they named Santa Barbara.

In the following year Serra journeyed to San Gabriel, San Buenaventura, San Luis, and other stations, and made a tour of inspection to the northern missions, near San Francisco Bay. In the following year, 1784, the venerable missionary died at the mission of San Carlos de Monterey, and was buried there. With him the progress of exploration and settlement in California seems to have ceased, but at intervals some villages and missions were subsequently founded. It had been in contemplation to form an establishment at the harbor of Trinidad (discovered by Heceta in 1775), but that purpose was never accomplished. Of the persons enlisted in this work, several died about the same time. Don Juan Perez, the pilot, a personal friend of Serra and assistant in his land excursions, ended his days in 1775, soon after his return from the far north with Heceta and Bodega.

Father Juan Crespi, the associate of Father Serra in many labors and journeys, and author of some valuable journals, died in California in 1782; and in the same year Father Garces, after opening a way from the Colorado country to the westward, was killed by the Indians. Don Antonio Bucarelli, the Viceroy who had liberally assisted the Franciscans, died in 1779, and his successors were not energetic men.

The American Revolution, in which were involved in the interest of the colonies both France and Spain as against Great Britain, interrupted the series of Spanish undertakings and turned the attention of the court of Madrid to the east. It was decided that there should be no other expeditions started for America until peace was restored.

The scientific and commercial world for a long period derived no benefit from the early Spanish voyages to the northwest. All records of them being retained by the court and the Viceroy of Mexico, the public knew only of the departure, from time to time, of the companies as they were sent out.

CAPTAIN JAMES COOK, 1778.

After Anson's voyage, in 1741, English navigators had appeared at intervals in the Pacific. Wallis, Byron, and others traversed the waters along the equator and south of it, but the enterprising Captain Cook extended navigation to higher latitudes.

In 1769 Cook was near Otaheite and New Zealand. In 1772 he again entered the South Sea, and it was easy to forecast that the British would soon reach the northwest coast of America, where they had not been since the time of Sir Francis Drake (in 1578). But the coast had been remembered by them under the name New Albion, which on this map was intended to include the whole of Upper California. Spaniards, also, extended their pretensions, and some of their authors claimed rights that would be limited only by impassable ice towards the North Pole.

Captain Cook had viewed the icy barrier near the South Pole, but in 1776 he turned northward and was commissioned to discover whether any passage for ships was practicable between the Pacific and the Atlantic waters. Other officers were at the same time sent for the same object to Baffin's Bay. It was not supposed that any passage could be in less than 68 degrees of latitude, as Hearne, an English traveler, had found the land continuous below that parallel. Cook was therefore directed to winter at the Sandwich Islands, and proceed from thence in the spring of 1778 as directly as possible to the coast of New Albion, and to refit, if needful, in some harbor there. He was then to gain the sixty-fifth parallel, "taking care not to lose time in exploring rivers or inlets or upon any other account until he should get in the before-mentioned latitude."

Some distance north of Cape Mendocino the coast was seen on the 7th of March, 1778, and as determined by chronometer reckoning the longitude was 235° 20′ east. The latitude by observation was 44° 33′ north. Weather being unfavorable he named the cape first seen from his vessel Cape

Foulweather, which he supposed to be in latitude 44° 55′ and longitude 235° 54′ east. He stood for some time to the northwest, but making no progress and finding no harbor the course was changed to southwest. After recording lunar observations he reduced seventy-two sets of observations which had been previously made "with the time-keeper" in the course of three weeks, and these gave a mean result of 235° 15′ 26″ east for the longitude. That determination was adopted, and was applied as a check in marking on the chart all other positions along the coast.

On the 7th of March Cook was near a cape which he named Cape Perpetua, and five days after approached another, and called it Cape Gregory. He saw no more of the coast, as a storm drove his vessel southward and westward into the open sea, where an observation gave for the latitude 42° 45′ north. Favored soon with better winds and steering northeast the coast was seen again in 47° 05′, and continuing on that general course it seems probable that he approached the vicinity of Destruction Island. The extremity of the land which he saw was named Cape Flattery, because he hoped to find a harbor near it, but found none. Hence Cook did not enter the Strait of Fuca, but recorded the geographical position of the cape, or more probably that of Flattery Rocks. If somewhat southwest of those rocks he could not well see the mouth of the strait. On charts of the British Admiralty, the Flattery Rocks are named Cape Flattery, and the name of the cape on them bears the designation given by Vancouver, namely, Cape Classet. With varying winds Cook stood out from the cape, first to the south, then west-northwest, and finally northeast, and on that course he reached land on the 29th of March in latitude 49° 29′ north. The cape in view he called Woody Point, and a projection southwest of it he named Point Breakers. A bight between the heads he designated Hope Bay, because he expected to find there a harbor, and so it proved. He ran into the bay on the 1st of April, moored his ships, and remained several weeks, occupied in making repairs, taking in wood and water, in recording astronomical observations, and in conferences with the natives of the region, which he thought was part of the continent. When repairs were complete, Cook set out on the 20th of April in boats to view the sound, and on the sketch he marked it King George's Sound, but he soon ascertained that by the inhabitants it was known as Nootka. In books and maps after Cook's time both of the names were applied, but ultimately the Indian appellation alone was used.

Amongst the aborigines Cook found some iron tools, and copper and brass implements. These, and two silver spoons mentioned in his narrative, probably had been left by the Spanish expedition of Perez in 1774, but, having no knowledge of that, possession was taken of the harbor and surrounding country in the name of the King of Great Britain. Earlier, Perez had done the same for the King of Spain, and out of this and similar events arose controversies and discussions between the two powers.

Cook left Nootka on the 26th of April, and passed some time in examinations further north. He traced the coast of Russian America, and soon after was killed in a dispute with savages at the Sandwich Islands. His successor in command, Capt. Charles Clerke, after another attempt to find a passage through the northern region of America, reached Kamtchatka with an exhausted crew, and from thence the vessel proceeded to Canton in command of Lieutenant Gore, Clerke having died of consumption on the 22d of August, 1779. At Canton the sea-otter skins obtained of the Indians for a few buttons and scraps of iron, were sold for $60, and in some cases for $100 each. "It is astonishing," says La Perouse, "that the Spaniards who had this article in such abundance on the Californian coast, and who were for two hundred years in active commercial communication with China, should not have found out its value; furs having been for a long period procured by the Chinese from the coast of Kamtchatka." In fact, the statement by Captain Cook in regard to sea-otter skins, moved the commercial and seafaring world more than his geographical developments. The mention of them in the history of his voyage (published in 1784) excited a strong spirit of enterprise, and induced "a general starting for the northwest," as there once had been for the silver mines of Peru and Mexico. All maritime nations were incited to action, and from 1785 until 1793 followed a series of private and public expeditions which, in less than ten years, made the northwest coast of America well known, though it had been a mystery during three centuries. Vancouver's voyage completed the development; but all others were of interest. Even trading voyages were dignified by descriptions, and details were published, because they related to countries comparatively unknown. Each navigator brought home addi-

tional information, knowledge, and name of a promontory, channel, inlet, island, or previously unknown part of the coast, and the particulars were speedily translated into all the languages of Europe.

LA PÉROUSE, 1786.

Francois Galoup de la Pérouse sailed from Brest on the 1st of August, 1785, with two ships, La Bonssole and L'Astrolabe, and after touching at the Sandwich Islands reached the northwest coast of America on the 23d of June, 1786. When Mount Saint Elias was in view, he turned southward and sailed as far as Monterey, in a direction different from that prescribed by his instructions, in which the special objects mentioned were the exploration of the coasts of China, Japan, Tartary, and Kamtchatka. But as the trade winds there did not set in earlier than February, some time was given for the examination of the Pacific coast. Until the 3d of August the vessels were detained by several accidents at a port which La Pérouse called Bay des Francois. He reached Nootka on the 24th of August, and as the weather was very foggy, it is certain that little was done for geographical definition. At the Strait of Fuca he did not see the entrance, but in the offing took soundings and found "a bank of rounded pebbles at the depth of 40 fathoms." This is marked on his map, and in the narrative is described as being 150 feet high, 1 league wide, and of indefinite length. On the 1st of September La Pérouse was off the coast a short distance southward of Cape Flattery, and surveyed from thence down to the forty-fifth parallel, and had several opportunities for observing latitude and longitude. This stretch of the coast had not been examined by Captain Cook.

At Cape Blanco or Orford, the French navigator saw the rocks which stretch out to the southwest, and named them Isles Necker, and subsequently he applied the same name to two groups of South Sea islands. In all other instances La Pérouse adopted for his charts the Spanish names, or those given by Cook. The French vessels sailing amidst fogs arrived at Monterey on the 15th of September, and there observations were made for geographical position. On the 24th of that month La Pérouse started on his voyage across the Pacific Ocean. A comparison between his charts and those of Vancouver (only six years later) shows that the French navigator had no opportunity to advance knowledge in the hydrography of that region. Still, his observations would have been valuable, if they could have been made known to the world promptly; but the unfortunate fate of that accomplished navigator delayed the publication of results until the year 1797. Vancouver and others had meanwhile laid open to the world the secrets of the Pacific coast; and thus it happened that even the few names affixed by La Pérouse to localities on our northwestern coast were not adopted by geographers, and are now seen only in the journals of his voyage. His charts were constructed under the direction of the astronomer Dagelet, member of the Academy of France.

1785–1787.

The resorts of fur-bearing animals became objects of much interest soon after the time of Captain Cook. In the higher latitudes the skin of the sea otter was worth much, but along the coast of California those animals became scarce, and the furs were less valuable. Prompted by interest, several expeditions went to the northwestern coast, and after touching at points south of it, they finally selected Nootka Sound as a recruiting station. But of many voyages, only such will be mentioned as tended to improve the knowledge previously gained respecting the western coast.

The first fur hunting expedition was conducted by Captain Hanna, of England, who sailed in 1785 from Canton to Nootka Sound. Cook had made his best barters in the last-mentioned place; and there Hanna collected many skins and sold them at large prices in Canton. In the year following he made another voyage for trade, but it added nothing in the way of geographical development. So also of the voyages in 1786 by Captains Peters, Lowrie, and Guise, from Canton and Bombay. Peters was wrecked on one of the Aleutian Islands, but the others reached their destination, procured furs, and sold them in China.

Captains Meares and Tipping in the year last mentioned were unfortunate. The first was

frozen up in Prince William's Sound, and lost many of his crew. Tipping, with his vessel, was lost, and was never heard of again. In 1788–'89 Meares made two successful voyages.

In 1785 an association of London merchants, under the name of King George's or Nootka Sound Company, sent two ships to the North Pacific. One of the vessels, the Queen Charlotte, was commanded by Capt. George Dixon; the other, King George, was in charge of Capt. Nathaniel Portlock. Both of these officers had served under the celebrated navigator, Cook, and by him were regarded as able men. They reached the northwestern coast in the summer of 1786; and there traded and made explorations, and wintered at the Sandwich Islands. Dixon returned to the northwest, and named several places. As the chief result of his voyage, may be mentioned the circumnavigation of the large island named after his ship, Queen Charlotte's. He proved that it was separated from Vancouver's Island, as well as from the continent of America; and to the dividing channel he gave the name Dixon's Strait.

The fur-trading adventurers sailed under different flags, to avoid collision with English and East India companies. Some used the Portuguese, and one, Captain Berkeley, sailed from Ostend, in 1787, in the ship Imperial Eagle, on which he carried the Austrian flag. This voyage was the first one made from Nootka Sound to the southward along the coast of California. At Vancouver Island, Berkeley anchored at an inlet for trade, and marked it on the map with his own name, but it is now known as Natinat Sound. A boat was sent to Cape Flattery, and after landing near an Indian village named Classet, went on southward, but previously a yawl had been manned to examine the mouth of a great inlet. On landing the crew was attacked by Indians and murdered, and that untoward event was commemorated by naming the place Destruction Isle. It is probably the same island that in 1775 was named by Heceta "Isla de Dolores." Berkeley sailed to the Sandwich Islands, and from thence to China.

CAPTAIN JOHN MEARES, 1788.

The narrative published at London in 1790 is accompanied by two charts—one of the North Pacific Ocean, the other of the northwestern coast of America.

Meares made several voyages from Calcutta after the beginning of the year 1786. In 1788 he was again with his ships, the Felice and the Iphigenia, in King George's Sound (Nootka), and there built a trading-post. While so engaged he was visited by an Indian chief from the south of Vancouver's Island, and was invited to the settlement of the tribe at the Bay of Clayaquot. On the 11th of June Meares sailed in the Felice from Nootka, where he left part of his company employed in erecting buildings. Captain Douglas, in the Iphigenia, was directed to trace the coast to the north between Cook's River and Nootka, while Meares went southward.

At Clayaquot Sound, he anchored in a harbor which he called Port Cox; and passing Berkeley's or Natinat Sound, he had, on the 29th of June, in clear weather an inlet in view, bearing east-southeast with unbroken horizon towards the east. He sailed over to the land south of the entrance of this inlet, which he thought to be the one described by Captain Berkeley in the preceding year, and then named John de Fuca Strait. At page 156 of the printed narrative, Meares gives a large view of the entrance. Near Cape Flattery the vessel was moored, with the intention of exploring with boats to the eastward. Tatooche, an Indian chief, then ruled in the vicinity of the island which is known now as Tatoosh Island. Meares saw on the coast a village named by Berkeley, and from that the headland (Cape Classet) was named by Vancouver. Going southward Meares saw Destruction Island, where the men of the ship Imperial Eagle had been killed by the savages. The bay north of this he calls Queenbithe, the name given by Berkeley; and south of it a projecting part of the coast he named Saddle Hill.

A large snow-clad mountain seen at the northeast was named by Meares Mount Olympus. The Spanish navigator Perez saw it in the year 1774 and named it Cerro de Santa Rosalia. Meares passed the entrance of Gray's Harbor without seeing it, but on the 5th of July, he discovered from a distance a similar body of water and named it Shoalwater Bay, because the soundings decreased very much in its vicinity. From the masthead the bay was seen extending inland, and made up of several branches, and inland the bay was bounded by mountains. At the entrance the northern cape was named Cape Shoalwater, the southern he called Low Point. Some land was seen to the southward,

and he hoped it might be the Cape Saint Roe of the Spaniards behind which Heceta was said to have found a harbor. As he rounded the promontory a large bay seemed to open, but when he tried to enter, shoal water was met, surrounded by breakers, and as soon as possible the ship hauled out again. In consequence of this (says Meares), being now convinced that there was no inlet or approachable port, the bay was named Deception Bay, and the promontory Cape Disappointment, which headland is the Cape Saint Roque of some Spanish maps, and now Cape Hancock on charts of the Coast Survey. This was on the 6th of July, and Meares then believed himself able to assert that there existed no such river at all as that of Saint Roe. Steering on farther south he saw two headlands and between them a bay formed by the receding coast. To the northern headland (now Tillamook Head) he gave the name of Cape Grenville, and to the southern, seen from a distance, that of Cape Lookout. The intervening body of water he called Quicksand Bay. The rocks seaward of Cape Lookout were named the Three Brothers. In his published work Meares gives a view of the cape and its rocks, and among the latter appears the perforated rock now so well known to mariners who pass along the coast. Cape Lookout was the southern limit of the exploration by Meares. Feeling uneasy in regard to the safety of the people left at Nootka, he turned northward and in the course of his voyage entered the sound near Vancouver Island. It was known as Berkeley Sound after the year 1787, but it is now known as Natinat. There he found a harbor, named it Port Effingham, and performed the ceremony of taking possession of the Strait of Juan de Fuca in the name of the King of Great Britain. From thence the long boat was dispatched in charge of Mr. Robert Duffin to explore the strait. Duffin left on the 13th of July, but returned to Port Effingham on the 20th of the same month. Meares says that after advancing nearly 30 leagues up the strait, Duffin entered a port or harbor from which "he observed that the strait to the northeast appeared to be of great extent, and that it increased." Meares has Port Duffin on his map in the position now occupied on charts by San Juan, or Poverty Cove. In that neighborhood Duffin was attacked by the natives, who wounded some of his men, and as soon as possible the little party, in consequence, returned to Port Effingham. Meares decided to return to the party which had been left at King George's Sound; and after an absence of nearly two months he again anchored in Friendly Cove, at Nootka.

Soon after his return to England Captain Meares published an account of his explorations of 1790, and added what had been told to him of the American Captain Gray, whom Meares had met at Nootka in 1788. Meares was informed that Gray sailed in the ship Washington, in the year 1789, to the Strait of Fuca, and there entered an extensive inland sea. After sailing in it eastward, north, and northwestward, he had come out upon the Pacific at the north of Queen Charlotte's Island, thus proving that the land between Fuca Strait and the fifty-fifth degree of north latitude was merely a group of islands. Confused by these statements, Meares declared in his published work in 1790 that the discovery of a northwestern passage (around the continent of North America) was a reasonable supposition. Captain Gray gave to Vancouver a true account of his voyage, and stated that he had seen very little of De Fuca's strait.

Many geographers in Europe hailed the exaggerated report of Meares, and the fables of Admiral De Fonte respecting a great northern inland sea and water communication between the Pacific Ocean and Hudson's Bay were revived. Fleurieu, the French author and minister of marine; Forster, the German historian of the northwest, and others adopted as a fact in geography "the great open sea discovered by the American ship Washington." Some called it simply "la mer de l'Ouest," and others recalled the fabulous name "Archipelago of Saint Lazaro," given by De Fonte. On some maps the route of Captain Gray was laid down as running through the middle of an archipelago on a dotted line upwards of 600 miles in length. Vancouver reduced that fantastic sea to its proper size. But, as late as the sixth year of the French Republic, the geographer Fleurieu could not consent to give up the "mer interieure." Like the two Buaches, he continued to foster belief in the authenticity of the romance of Admiral De Fonte, and he blames the map-maker, Arrowsmith, because on his map of 1794 the sea was not introduced, which, as Fleurieu declared, "would no doubt lead to much more important discoveries, and perhaps open or at least facilitate the long-wished-for communication with the eastern ocean."

A few years preceding the French revolution, English fur-traders went to the northwest, and from France the navigator La Pérouse passed into the Pacific. He was soon followed (in 1791)

by a private expedition, conducted by Marchand, and the Government of the United States ordered that exploration should be made in the South Sea. Spain also, which for ten years had discontinued her northwestern expeditions, renewed action, and in 1788 sent out several parties. These were partly contemporaneous with Vancouver. The Spanish parties were commanded by Don Estavan Martinez and Don Gonzalo Lopez de Haro, who sailed, in the ships La Princesa and San Carlos, on the 8th of March, bound from San Blas to the north to examine the vicinity of the Russian settlements. An account of this expedition is given by Navarrete; and Humboldt found in Mexico a large manuscript relating to the voyage. The same vessels were sent north in 1789, and on the 6th of May Martinez reached his destination, and seeing some foreign vessels, made known to their commanders that he had come to take possession of Nootka and the surrounding country in the name of the King of Spain. He erected a small fort, mounted artillery, and sought communication with Macuina, the Indian chief of the region, who had been during ten years well known to northwestern navigators. The chief remembered the visit of Martinez fourteen years earlier, when he was on the coast with Perez.

Macuina is styled by Humboldt the "Montezuma of the northwest." To him and his people Martinez declared that his King was sovereign everywhere in America, and that without his permission none could trade, navigate, or settle there. He inspected the papers of all foreign captains. Those of an American and of a Portuguese vessel were admitted as valid, and they were allowed to trade; but the ship of an Englishman, Captain Colnet, was seized, and he was sent a prisoner to Mexico.

The mission of Martinez was in fact merely political, yet it included some further exploration of the vicinity of Nootka and of the channel which separates it from Vancouver Island. For the port itself he adopted the name of Puerto de Santa Cruz de Nutka.

STRAIT OF FUCA, 1789.

When Martinez was at the north with Perez in 1774 he had noticed an opening which he supposed to be a strait, and having now the control of means its exploration was undertaken. He accordingly built at Nootka a small galley, the Gertrudio, and put it under command of Don Lopez de Haro, who had been with him in his preceding voyage. That officer sailed along the southwestern shore of Vancouver Island, and after entering the Strait of Fuca turned and examined the southeastern end of the island, but want of provisions and bad weather constrained him to return to Nootka.

This enterprise of De Haro was conducted under special instructions. The result is given in the journal of the Sutil and Mexicana, and the author gives a sketch of previous expeditions for the exploration of the strait, mentioning the ship Gertrudis as commissioned by Martinez; but he does not name Haro as the commander. It is also noticed in Quimper's manuscript journal, a copy of which, approved by Navarrete, is in the library of the State Department in Washington City, D. C. That journal mentions the vessel as under command of De Haro. It is believed, therefore, that M. Duflot de Mofras is in error when he says that Don José Narvaez was commander of this expedition in the Gertrudis. The memory of Narvaez may have failed him, as he was at least eighty years old when he met De Mofras in Mexico in the year 1842. Narvaez had been a very active officer. He accompanied Elisa in 1791, and it is therefore possible that he was with De Haro in 1789.

When the British Government protested at Madrid against the treatment of Captain Colnet, the Viceroy of Mexico deprived Martinez of his command, and ordered him to return home by the end of the year 1789, but at the same time three armed vessels were sent to the northwest under the command of Don Francisco Elisa and Don Salvador Fidalgo, to take possession of Nootka for the King of Spain. This expedition reached its destination in March, 1790. Elisa remained to fortify and enlarge the establishment at Nootka, while Fidalgo made a voyage of discovery to the north. In the course of the year he viewed the Russian establishments as other Spaniards had done, and entered on his maps some names which have not been retained. At the close of the year he returned to Monterey, and from thence to San Blas.

DON MANUEL QUIMPER, 1790.

Quimper sailed from Nootka in the balandra La Princesa Real on the 31st of May, and passed along the southwestern shore of Vancouver Island, exploring on his way Clayaquot Sound. He anchored in the Bahia de San Rafael, and subsequently in the port of Cayuela, which he says was so named by Lopez de Haro the year before. Quimper reconnoitered Clayaquot Sound and made a map of it, but did not examine its numerous inlets and branches. He then entered the Strait of Fuca, coasted along the southern shore, and anchored at the harbor of Nuñez Gaona (Nee-ah Harbor), and took possession in the name of the King of Spain. The document in which an account is given of this interesting ceremony is signed by Quimper himself, and his two pilots, Don Gonzalo de Haro and Don Juan Carrasco.

Proceeding easterly to the port called by him Puerto Quadra, but afterwards named by Vancouver (in 1792) Port Discovery, Quimper steered to the northwest and north until he reached the strait called La Boca de Haro, and that name (Mouth of Haro) he mentions as if already known. He looked into the passage but was unable to explore it, as his means were exhausted. For the same reason Quimper says "we could not explore the other small inlets or harbors which we saw at the western entrance of De Haro Strait." Many years afterwards these were named by the English Peddler Bay and Becher Bay.

MALASPINA, 1791.

The Italian navigator Malaspina was noted for scientific acquirements and discoveries, and his career was marked by misfortune. Like Captain Cook and La Pérouse, he engaged in geographical explorations, of which the northwest coast of America was merely one branch. In 1789 he sailed from Cadiz with two well appointed vessels, La Descubierta and Atrevida, and, after reaching the Rio de la Plata, made a careful survey of the coast of South America, from thence into the Pacific, and as far north as Mexico. Malaspina arrived at Acapulco on the 2d of February, 1791. By direction he was to proceed north, survey the coast, and seek for a passage into Hudson's Bay, as that was still regarded as an unsettled question. The well-known geographer T. N. Buache had in the previous year read a memoir before the Academy of France, in which he attempted to prove that the old fable of Maldonado's discovery of a strait at the north "was founded on reason, nature, and probability." Another of the name had believed in the fictitious narrative of De Fonte. It seems likely that some account of the statement by Meares respecting a northern Archipelago, through which the American sloop Washington was said to have sailed, had reached the court of Spain.

Malaspina left Acapulco on the 1st of May, 1791, and sailed northward as far as the latitude of Mount Saint Elias. He saw no indication of Maldonado's strait, but having instruments and knowledge of methods of observation (as stated by Humboldt) he determined longitude and latitude at many points more accurately than had ever been previously done. The height of Mount Saint Elias and the height of Mount Fairweather were approximately ascertained and magnetic observations were recorded.

Touching at Nootka on his return, Malaspina erected an astronomical observatory and determined the geographical position of the place. Two of his officers, Don Joseph de Espinosa and Don Ciriaco Cevallos, were sent in boats to survey the islands and channels of that locality. They found that Nootka was on an island, and passing around it they came out upon the sea by a channel since known as Esperanza Inlet.

Malaspina was not able to explore the Strait of Fuca, but from Cape Mendocino he passed, with the coast in view, down to Cape San Lucas, frequently recording observations for the construction of his chart. No previous expedition had afforded data for defining the shore line with such accuracy. His records were deposited in the Spanish archives, and ultimately he became the victim of court intrigues. In a dungeon he languished many years, and was at last released by the French. His name seemed to be forgotten in Spain, as, with the appearance of studied malice, his expedition to the Pacific was alluded to by Spanish writers as having been made by the ships Descubierta and Atrevida. The learned author Navarrete, in his history of

the northwestern coast, does not mention Malaspina, but sometimes refers to him as the "commandant," &c. But in time most of the works of Malaspina were published, and upon the results of his observations (says Humboldt) are founded all the Spanish sea charts of America made since the year 1799. Previous representations are of value only as documents pertaining to the history of discovery and development.

The commander at Nootka, Don Francisco Elisa, went out in the summer of the year 1791 to clear up uncertainties respecting the Strait of Fuca, some doubts having arisen in regard to the report given by Quimper who had been there in the previous year. Like some others this voyage of Elisa has been neglected or overlooked by most writers. There seems to be only one source of information in regard to it, namely, the journal of Galiano and Valdez, on the second page of which is given a short account of the undertaking, and in the narrative are mentioned special points, the capes and bays mentioned by Elisa, with the names which he assigned to them. He sailed from Nootka in May, 1791, and until the 7th of August was engaged in exploring the Strait of Fuca and Rosario Strait. Advancing further than his predecessors, he passed the entrance of Admiralty Inlet (Bocas del Coamaño), Deception Sound (Entrada de Flow), and sailed through what is now called Rosario Strait. He discovered and named several islands, and entered Bellingham Bay, which he called "Seno de Gaston." Elisa was the first European who entered the Gulf of Georgia, and to it he gave the name Canal de Nuestra Señora del Rosario. Advancing as far as Frazer's River entrance and Buzzard's Inlet, he named the latter Canal de Florida Blanco, in honor of the Spanish minister. He went no further, but seems to have had some distant capes in view. His means were exhausted, most of his crew were sick, and himself so ill that one of his officers, Don Joseph Narvaez, was in the latter part of the voyage the active commander. It was Narvaez also who compiled the maps of the expedition, and these circumstances perhaps explain his assertion made to De Mofras when they met in Mexico, that he had himself explored the Strait of Fuca and Rosario Strait in 1791. But he had boasted of this as early as 1789, when he was, perhaps, there under the command of De Haro.

MARCHAND, 1791.

Etienne Marchand was captain of a French merchant vessel trading to the East Indies when (in 1788) returning from Bengal he met at St. Helena, with Captain Portlock, an Englishman, who told him of the very profitable fur trade then commencing on the northwest coast of America. On his arrival at Marseilles, Marchand made the facts known to the house of Baux, a wealthy and enterprising commercial firm, who at once fitted out the ship Le Solide and gave the command to Captain Marchand. A staff of eleven officers joined him, and preparations were made to enable the party to make discoveries as well as to carry on trade. They sailed from Marseilles in December, 1790, four years after La Pérouse, and on the 12th of August, 1791, arrived at Norfolk Bay, called by the Spaniards Baya de Guadalupe, and by the Russians, Sitka Sound. Somewhat disappointed with the results of commercial transactions, Marchand passed along the coast southeast, and examined points of land, ports, and bays on Queen Charlotte's Island and in its vicinity; but all of these had been previously visited by La Pérouse, and by some of the English navigators. After some attempts at trade Marchand went further south, intending to enter Berkeley Sound on Vancouver Island, and from thence, if practicable, go as far south as Cape Mendocino.

Marchand anchored off Berkeley Sound on the 7th of September, but was prevented from entering by threatening weather. While making ready on the following day, he saw a three-masted vessel coming out of the port, which he concluded had taken all the furs that were previously there. He noticed that the strange vessel (an American ship) took the course which he had intended to pursue towards the coast of New Albion and Cape Mendocino. Hence, being anxious to get the highest price for his cargo, he sailed for China. Fleurieu regards it as improbable that Marchand saw even the entrance of the Strait of Fuca.

VANCOUVER, 1792–'95.

In the period of fourteen years after the expedition of Captain James Cook no party was sent from England to the Pacific Ocean. A voyage, however, was planned in 1789 for exploring

some of the southern regions, and Captain Henry Roberts, a friend of Cook, was invited to take command. Captain George Vancouver, associated with Cook in his last voyage, was urged by Roberts to accept place as his second, and the ship Discovery was fitted out for them.

Not long before the vessel was ready for sea (April, 1790) it became known that the English factories at Nootka and the English ship of Captain Colnet had been seized by the Spaniards. The ship "Discovery" was in consequence provided with an armament; and the preparation of a formidable English fleet induced the court of Spain to offer restitution. In July an officer was sent to Nootka "to receive back the territory which the Spaniards had seized." George Vancouver was appointed for that duty.

The attention of the British Government being thus drawn to the northwest, where fisheries and the fur trade had become objects of material importance to England, Vancouver was directed to make an accurate survey of the coast from the thirtieth parallel northwestward to Cook's River, "to pay particular attention to the examination of the supposed Strait of Fuca, said to be situated between 48° and 49° north latitude, and to lead through an opening which the sloop Washington was reported to have passed in 1789." He was further directed to enter and explore all the waters, rivers, and inlets of that coast only so far as they were navigable for sea-going vessels, and on no account whatever to touch at any port of the northwest coast south of the thirtieth parallel of latitude.

Vancouver, though amply provided with means and instruments, was not so well provided as Cook and La Pérouse had been with scientific observers. Hence the task of making astronomical and nautical observations devolved on Vancouver personally. He had "amongst the officers and young gentlemen of his quarter deck a few who, with a little instruction, would soon be enabled to construct charts, take plans of bays and harbors, draw landscapes, and make faithful portraits of the headlands, coasts, and countries which might be discovered." His able officers deserve to be mentioned, as their names are attached to inlets, bays, and capes to this day. Those in the ship Discovery were Zacharia Mudge, Peter Puget, Joseph Baker, and Joseph Whidbey. The Chatham was commanded by Lieut. W. R. Broughton, and the officers associated with him were James Hanson and James Johnstone.

Vancouver, like most of his predecessors, made the Sandwich Islands his chief place of resort and his winter station. He sailed from England on the 1st of April, 1791, and arrived at the Sandwich Islands on the 1st of March, 1792. On the 18th of the same month he again went to sea, and saw the coast of New Albion, and also Cape Mendocino, and from thence sailed northward, as far as the Strait of Fuca, with favorable winds. He kept the coast in view, as the weather was clear, at an average distance of about 3 leagues from land. "When the weather prevented our making free with the shore or our hauling off for the night, the return of fine weather and the daylight uniformly brought us, if not to the identical spot we had departed from, at least within a few miles of it, and never beyond the northern limits of the coast which we had previously seen. This afforded the most complete opportunity of determining its various turnings and windings, as also the position of all its conspicuous points, ascertained by meridional altitudes for the latitude, and observations by the chronometer, which we had the good fortune to record once, and in general twice, every day." He noted accurately the configuration and soundings near Cape Mendocino, and explored the sandy beach near Humboldt Bay, but did not enter that body of water. He also recognized and named the capes Rocky Point, Point Saint George, Cape Orford, Cape Gregory, Cape Perpetua, and Cape Foulweather, where Captain Cook had touched the coast; likewise Cape Disappointment and Deception Bay, names given by Meares to the entrance of Heceta Inlet, now Columbia River entrance. There Vancouver was deceived as Meares had been. He saw breakers, and "not considering this opening worthy of more attention," he passed on with pleasant weather and a favoring breeze which he was anxious to improve. He endeavored to enter Shoalwater Bay but was unable, and did not attempt to get a nearer view of the country, being attracted when off Gray's Harbor by a high cape in the distance, named by him Cape Grenville. He recognized the Island of Destruction, named by Captain Berkeley, and "approached with increasing curiosity and excitement the region where De Fuca's strait was said to be."

On the 29th of April Vancouver fell in with the American ship Columbia, commanded by

Capt. Robert Gray, the same officer who in the sloop Washington was said to have sailed through De Fuca's strait to an interior sea. With him Vancouver conferred and learned that Gray had seen only about 50 miles of the strait; but Gray gave more important information in regard to the mouth of a large river which he had seen in latitude 46° 10′. Vancouver kept on northward, looking for the promontory named by Captain Cook Cape Flattery, but because of discrepancy in the latitude he could not identify the place with complete satisfaction. He concluded, however, that the northwestern end of the land 2 miles from Tatooche Island, which he had called Cape Classet, must be the point so named by Cook, and therefore adopted the name on his chart. He accounted for the discrepancy in latitude by supposing that Cook had been carried by the currents farther north than he was aware of, but in that conclusion Vancouver probably erred. The headland which Cook called Cape Flattery was not the same as that named by Meares and Vancouver Cape Classet, but was more probably the Flattery Rocks.

A rock standing northwest from the Cape, Vancouver named Rock Duncan, in compliment to an English captain from whom he received an excellent sketch of the entrance of the Strait of Fuca. The sketch is doubtless the same "sketch of the coast of North America from Nootka down to 47 degrees north latitude, including the Gulf of Juan de Fuca," of which mention is made by the Lords of the Admiralty in their additional instructions to Vancouver. Dalrymple in the year 1791 published Captain Duncan's chart of the Strait. On the evening of the 29th of April Vancouver entered it, sailed next day along the south shore, and gave the name New Dungeness to a low sandy point which resembled Dungeness in the British Channel. In the course of the following day he examined and named Port Discovery without knowing that two years earlier it had been named by the Spaniards Puerto de Quadra. There he moored his vessels for repair, left a party on shore in charge of Mr. Broughton, and then with boats went eastward to explore the unknown waters. The party under Vancouver started on the 7th of May with provisions for five days. After rounding the eastern entrance of Port Discovery they entered a broad inlet, with two branches stretching south-southwest and south-southeast. In the western arm a harbor was found similar to Port Discovery, and to it was given the name Port Townshend, in compliment to the English marquis of that title. A high, steep cliff forming the point which divides the harbor from the broad eastern inlet was called Marrowstone Point, because it seemed to be composed of a species of marrowstone.

On the 9th of May Vancouver went southward into Admiralty Sound, and saw on the western shore a small bay fringed by large trees. This he named Oak Cove. From a high perpendicular bluff, marked by him as Foulweather Bluff, he observed that the inlet separated, as at Marrowstone Point, into two branches. The western arm was explored as far as Hazel Point, a name which he applied because of the abundance of those trees; but it has since been known as New Kolowan Point. From thence the channel sends out a short arm or bay to the north, and this was explored by Vancouver, but was not named.

He then passed into the southwestern extremity of the great canal, and according to his observations it ended in latitude 47° 21′ north. Hoping that some communication with the east might be found in Admiralty Inlet, Lieutenant Johntone was sent to examine that quarter, but, according to his report, the arm known as Hood's Canal was overlooked. This was subsequently examined and traced by the exploring expedition, under Captain Wilkes. Vancouver, however, passed through it and named it for one of the Lords of the Admiralty. He resolved to explore the broad inlet (Admiralty Inlet) with the ship Discovery, while Mr. Broughton, in the Chatham, was examining the islands northeast of the Strait of Fuca.

On the 18th of May both vessels moved accordingly, and Vancouver entered the main body of Admiralty Inlet. He found an attractive region. A point of land near a good roadstead he first named Village Point, from an Indian village in that vicinity, but afterwards he marked it as Restoration Point, having, as he says, "celebrated that memorable event when at anchor under it." This point, lying at the northern entrance of Port Orchard, north of a small island now known as Blake Island, he made the principal station while exploring the sound. From thence he sent out parties to examine the different water branches, and there he awaited the return of the party in the Chatham. Towards the south, Admiralty Inlet shows two branches, separated by Vashon Island. To explore the southwestern arm a party was sent in boats under Lieutenant Puget, on the 19th of May. Meanwhile Vancouver and his men examined the vicinity, and approaches to

their station. A narrow inlet seems to form a small cove, but when explored by Mr. Orchard it was found to communicate with other waters. A boat expedition found it to be an interior basin with several branches, and it was named Port Orchard. On Vancouver's chart it is shown as a closed basin, but subsequently his sketch was corrected when it became known that this so-called port had other branches, communications, and passages.

On the 25th of May Mr. Broughton returned to the Chatham from his northern excursion, and joining Vancouver off Port Orchard gave him intelligence of a large assemblage of islands northeast of the Strait of Fuca: the Haro Archipelago. Vancouver set out on the following day to explore further south the main arm of the great channel (Admiralty Inlet), at the same time directing that, on the return of Puget and his party, Broughton was to examine a branch to the northeast, the entrance of which had been seen on the eastern shore. Vancouver had noticed on that shore, in latitude 47° 17′ north, an opening which he supposed might lead far to the eastward, as a range of distant snow-clad mountains was marked by a break corresponding with the direction of the branch. He soon after found there only the closed body of water now known as Commencement Bay. Proceeding on the main water, another land opening was seen leading in the direction to the place at which the ships were moored. The land proved to be a large island. He sailed around it and named it Vashon Island, in memory of his friend, Captain Vashon, of the British navy. Keeping on south and west various bays and branches were explored, but they all ended in swampy ground. On Monday the 28th he reached the south end of Admiralty Inlet, and on his chart placed it in latitude 47° 03′ north, and longitude 237° 18′ west. To the east and south all was inclosed by land and he had already entered the quarter which had been assigned to Mr. Puget. He therefore returned and reached the anchorage on the 29th of May, on his way passing the western side of Vashon Island. Puget had passed quite through the southwestern part of Admiralty Inlet, and to that branch Vancouver gave the name of Puget Sound.

Broughton had sailed to the branch which was afterwards called Possession Sound, and there the returning party found the Chatham at anchor on the 30th of May.

Mr. Whidbey had been previously sent in a boat to explore the northern branches of that sound. One was named Port Susan, but it is now known that it has an opening to the north. Another was named Port Gardner, and to a small harbor found by the party Vancouver gave the name of Penn's Cove.

The officers and men of Vancouver's company being again collected, and, as he judged, the exploration being complete, the commander concluded to take formal possession of the region before proceeding to another field of research. That ceremony was performed on the 4th of June, the anniversary of the birth of King George III. Vancouver went ashore, and with customary formalities claimed all the coasts from that part of New Albion in latitude 39° 20′ north to the entrance of the Strait of Fuca; also the islands within the strait, those in the interior sea, and all the channels and branches of that sea. To these collectively he gave the name Gulf of Georgia. The adjacent tract he called New Georgia, and the bay or inlet where the ceremonies were performed was named Possession Sound.

On the 6th of June both ships sailed through the entrance of Admiralty Inlet to the north around the cape to which was then given the name Point Partridge, and, when near what is now called Smith's Island, Whidbey was sent with boats to explore two entrances visible on the main shore towards the northeast, the vessels keeping on north to a harbor seen by Broughton when he was cruising with the Chatham at the end of May. He had named the place Strawberry Bay. This port was on the southeastern side of an island, called by Vancouver Cypress Island, where the ships were moored to await the return of the boats. There Whidbey arrived on the 10th of June, and reported that having entered the most southern of the two inlets he found it a narrow and intricate channel abounding in rocks and communicating with another previously discovered by him, which was supposed to be closed, and was named Port Gardner. The name given to the one last visited was Deception Passage, and the long strip of land which Whidbey had proved to be an island was named after him, Whidbey Island. After leaving Deception Passage he had entered an inlet to the northeast and found an extensive bay, the shore lines of which he did not trace. They left Strawberry Bay, and going north anchored on the 11th June in another, which was afterwards called Birch Bay, where Vancouver intended to establish a central station for

further operations and boat excursions. There Broughton was left in command, and was directed to make astronomical observations, while Whidbey went southeast to complete the survey of the great bay he had discovered from Deception Passage; and Vancouver in person started with boats to the north to examine the shore of the continent. He left Birch Bay on the 12th of June, and explored two bays, but assigned no name to either. Passing around a long, low peninsula, west of these, he called it Point Roberts, after Capt. Henry Roberts, his predecessor in the command of the ship Discovery, and sailed along the shores of the delta of what is now known as Frazer's River. Here the soundings diminished from 10 fathoms to 1 fathom, and all endeavors to approach the eastern shore were to no purpose. The sand bank was so extensive that in order to clear it he was constrained to pass westward to anchor for the night. Next day he again started in a northeast direction and found a cape which he named Point Gray, in compliment to Capt. George Gray. The space between this and Point Roberts seemed to be "a low flat very much inundated, and to have two openings between the two points." These were doubtless the mouths of Frazer's River. The sand bank between them he named Sturgeon Bank, as he had bought some sturgeon there from Indian fishermen. Thus Vancouver missed the discovery of the largest river in New Georgia, as he had previously overlooked the Columbia River entrance.

From Point Gray he surveyed three extensive channels, named by him Buzzard's Canal, Howe's Sound, and Jervis Canal. On his way southward Vancouver met on the 22d of June two Spanish vessels near Gray's Point; and in conversation with Captains Valdez and Galianos learned that the expedition under Elisa had in the preceding year, and earlier than himself, examined the shores of the Gulf of Georgia. They exhibited Elisa's charts, and Vancouver saw on them the shore lines of bays and other geographical details extending 4 leagues further than he had advanced. The Spanish commanders were surprised when told that Vancouver had not seen the river entrance which Elisa had named Rio Blanco. The English commander evidently knew nothing of the existence of Frazer's River.

On the 23d of June Vancouver again was at the anchorage of his vessels in Birch Bay. Whidbey had previously arrived from his boat excursion to the eastward, and reported that he had examined a large expanse of water; and on his chart Vancouver marked it with the name Bellingham Bay. Other boats had been employed in the examination of islands at the west, but "these were found so abundantly dispersed as to preclude any correct examination without having leisure for the purpose." Thus, having traced only the southern and eastern parts, the development of the Haro Archipelago was left to later explorers. With a fine breeze and very pleasant weather, the two ships sailed from Birch Bay on midsummer morning and proceeded northwestward up the gulf. Soon after, Vancouver again met the Spanish expedition under Valdez and Galiano, and the three commanders resolved to carry on the work of discovery jointly. Sometimes the exploration of an inlet or cape was confided to the Spanish, and at other times to the English officers; but the partnership was soon dissolved. After the 13th of July each party pursued its own course.

Vancouver sent Lieutenant Johnstone in a boat to ascertain whether or not the inland waters on which they now were had any outlet to the Pacific. After passing through narrow straits, it was found that the tide entered from the northwest; and as the party advanced many Indian canoes were met, and as generally near the mouth of an outlet the shores were studded with Indian settlements he judged that he was in a passage to some other water, and soon after saw a broad sheet of ocean in the distance. On the chart the passage was marked Johnstone Strait. On the 10th of August Vancouver entered the Pacific and passed along the coast to the 52d parallel, returned around the island, and arrived at Nootka on the 27th of the same month. Four days after he was followed by the Spanish ships Sutil and Mexicana, which had also explored Johnstone's Strait with its numerous branches and inlets, and had given names to all. Vancouver preceded them, and it is proper that geographical names attached by that navigator should be retained on existing charts. With Quadra, the Spanish governor, then resident at Nootka, Vancouver agreed, and the great island was named Quadra and Vancouver Island. In October of the same year (1792) he sailed for the Sandwich Islands, which had become, since the time of Captain Cook and the fur-traders, a harbor of resort for the northwestern navigators from England and Eastern America. Vancouver left Nootka with three vessels, the Discovery, the Chatham, and the Daedalus. After remaining a short time in sight of the southern coast of the island, he crossed the approaches

of the Strait of Fuca. Captain Cook had applied the name Cape Flattery to what Vancouver had called Cape Classet, but, on finding that his designation was the name of an inferior Indian chief, Vancouver adopted the name which the cape now bears.

On the 18th of October he was off Bulfinch Harbor, so called by Captain Gray, who discovered it, and from thence Mr. Whidbey was sent in the Daedalus to explore the port. Vancouver in the Discovery, and Broughton in the Chatham, went on to the entrance of Columbia River, and there the Chatham was directed to lead in, and signal at the bar if not more than 4 fathoms of water should be found on it. She safely made her way in, but the Discovery in following soon came into 3 fathoms. Vancouver considered his vessel in danger, and hauled to the westward. The day following he made two other attempts to enter and reach the Chatham. The weather was clear and favorable. Vancouver saw far into the valley, and observed to the eastward a high snow-clad mountain, which he named Mount Saint Helens, in honor of the British ambassador at Madrid. It is a peak of the great range of mountains south of Mount Baker and Mount Rainier. On the 21st, as the weather looked threatening, Vancouver stood out to sea, leaving the exploration of the river entrance to his lieutenant, Broughton. On the way southward the commander again determined the geographical position of Cape Mendocino, and found the latitude to correspond exactly with his former observation. The longitude determination was within 3′, and this proved the accuracy of his first survey. From thence he made a quick passage to San Francisco Bay, where he arrived on the 14th of November, and was rejoined in the following week by Mr. Broughton, who had returned in the Chatham after exploring the Columbia River. He safely passed the bar of that river and anchored about a mile and a quarter inside of it. Seeing the Discovery put to sea again Broughton supposed he was left to examine further. He had no definite instructions, but went on eastward, guided at the outset by a sketch made by the American, Captain Gray. Broughton sounded in different directions, and gave names to several points and bays. Young's Bay and Young's River he named after Sir George Young, of the Royal Navy; Gray's Bay he named in compliment to the American captain, and Baker's Bay for the commander of a small vessel, the Jenney, which had entered the Columbia before the Chatham. In the course of ten days Broughton went about 80 miles up the river, and gave names to several points, islands, and branches. It is now difficult to identify the places, as the sketch published by Vancouver (plate 5 of his atlas) contains only a few of the names. But this is not important. It suffices to state that he went up the river nearly to the great mountain range, and only a few leagues west from the Cascades, which were described to him by an Indian. He named the place at which he turned back Point Vancouver. Possibly the river Mannings, of Broughton, may be the Willamette, but the latitudes do not agree closely.

On the 4th of November Mr. Broughton was again on board the Chatham. He put to sea on the 10th, and ten days afterwards rejoined Vancouver at San Francisco.

While his vessel was at anchor at the entrance of Gray's Harbor, Whidbey had examined the bar in boats, and finding a channel of 18 feet he passed in and moored off the north point of the entrance. From that place he began his exploration in boats and completed it on the 26th. The north point of entrance he named Point Brown, in honor of Captain, afterwards Admiral Brown, of the British navy. The southern was named Point Hanson, for the lieutenant who had commanded the Daedalus in the passage from England. To a point inside of the bay 4 miles east of Point Brown he gave the name Point New, after the master of his vessel. Mr. Whidbey left probably on the 27th of October, and rejoined his commander at Monterey about the middle of November. Vancouver remained at San Francisco Bay only to make a sketch of the entrance, and some visits to the neighboring missions. He left on the 25th of November, and "delineating the coast," proceeded to Monterey, where he arrived on the 26th and remained until the end of the year 1792, occupied in exploring the vicinity and preparing charts, drawings, reports, and letters for England. He determined the longitude of his observatory, near the Presidio of Monterey, from a series of nearly two hundred sets of observations, to be 238° 25′ 45″ east. "This result" Vancouver remarks, "differs considerably from that of Malaspina, who places Monterey 35 miles farther to the west, in 237° 51′, and he also places the northern promontory of Cape Mendocino 26′, and Point de los Reyes 33′ farther to the westward of their positions as shown by our observations." By Vancouver's calculations the entire coast of North America was uniformly moved about 30

miles eastward of the longitude assigned by Cook and Malaspina. "These" says Vancouver, "are authorities which demand the greatest respect and confidence, yet from the uninterrupted serenity of the weather that prevailed at the time our observations were made, I have been induced to adopt the meridian obtained from the result of our own observations."

On the 14th of January, 1793, Vancouver left Monterey and sailed directly for the Sandwich Islands, where he remained until the end of March, and then set out on a second voyage. He made the coast near Cape Mendocino, and having on his first visit in 1792 passed Port Trinidad unnoticed, which, according to the Admiralty Register of 1781, "appeared to be an eligible place for shipping," he entered it on the 2d of May, and anchored in "a small open cove, bounded by detached rocks." "When moored," he says, "the bearings from the ships were a high, steep, rounding, rocky headland, (Trinidad Head) forming the bay, bearing N. 75° W., distant three quarters of a mile, and the distant headland of Mendocino in sight towards the south." This description proves that the vessel was in the little cove on the shore of which now stands the town of Trinidad. All hidden dangers there have been developed in the work of the Coast Survey, but Vancouver reported it to be "a very unsafe roadstead for shipping, scarcely deserving the denomination of a port." In an excursion to the shore one of his officers found the cross which had been erected by the Spaniards under Quadra y Bodega in 1775, bearing the inscription "Carolus III Dei G. Hyspaniarum Rex." On the 5th of May he again stood out to sea and sailed for Nootka.

Between the islands of Vancouver and Queen Charlotte's there is a large gulf. The last named island stretches some of its promontories far to the west and advances more into the ocean than other islands of that region. Hence it was one of the first chosen for exploration. Towards the east and nearer to the mainland lies a labyrinth of islands, inlets, channels, and long peninsulas, which, up to the time now under review, had been considered as part of the continent. Vancouver entered these waters, and in this was preceded only by one navigator, the Spanish captain, Coamaño, whose observations were useful to the English navigator. The Spaniard, of whose voyage further mention will be made presently, sailed from Mexico when the Sutil and Mexicana started, and in the course of six months surveyed many parts of the archipelagos of Revillagigedo, Prince of Wales Island, &c. Some of the names given by him were retained by Vancouver, which proves that he must have known something of Coamaño's results and was materially assisted by his charts, which, in the opinion of Humboldt, he probably had on board. But much the greatest degree of merit regarding these explorations must be accorded to Vancouver. Here in the north, as formerly in the south, near the Gulf of Georgia and at the mouth of Columbia River, Vancouver and his officers, by advancing through the deeply indented inlets, approached those remarkable mountains that run along the northwest coast of America. A few high summits of the coast ranges and some isolated peaks were previously known, as, for example, Mount Saint Elias, Mount Fairweather, Mount Edgecumbe, and others; but the interior ranges had never been seen by Europeans. Vancouver traced them from California northward to Russian America.

On the 8th of October Vancouver left Nootka, and in the course of a week he was off Cape Mendocino. Lieutenant Puget was sent to gain information concerning Port Bodega, but as in the year previous, inclement weather made the intended survey impracticable. Vancouver meanwhile went to San Francisco, but the Spanish authorities were not cordial, and he kept on to Monterey. On the 5th of November he sailed again to complete his examination of the coast southward to the 30th parallel, as enjoined by his instructions. He passed along to Point Conception and from thence through the Santa Barbara Channel to San Diego. Favored by circumstances he everywhere approached the shore line, entered little harbors, and gave names to several points which he found to be nameless on the Spanish maps, as Point Sal, Point Arguello, Point Felipe, Point Firmin, Point Vincente, Point Lasuen, Point Dume, which have been adopted by geographers, and Vancouver has thus commemorated many noble and hospitable Spanish friends, both officers and missionaries, Don Sal, Don Arguello, Don Felipe Goyeochea, Father Francisco Dume, Father Vincente, and Father Lasuen, each of whom had received him cordially as he stopped at intervals in passing along the coast. He left San Diego on the 9th of December and coasted as far as San Francisco entrance. From thence he stood over to the Island of Guadalupe and the Sandwich Islands, intending to make his winter station there for the season of 1793–'94.

Among the non-existing waters marked on maps, even after the time of Captain Cook, was that deep and large inlet in Russian America, called Cook's River. It had been mistaken for the mouth of a great stream like the Saint Lawrence. Some in that day eagerly caught at the idea, and with no knowledge of mountain systems they gave the river a source in the Great Slave Lake. Mackenzie, it is true, showed that the waters of the Slave Lake flowed towards the Arctic Ocean, but space remained west of Mackenzie's River for the mythical stream once known as Cook's River.

On his third northwestern cruise, in the summer of 1794, Vancouver closely examined the surrounding country and expunged imaginary rivers which had been marked on earlier maps. To the one last mentioned after examination he gave the name Cook's Inlet, its proper designation. But he omitted some that were important. In the north, as twice before at the south, he was thus unfortunate. He had doubted the existence of the Columbia River until Gray proved it, and he left Frazer's River in the Gulf of Georgia unexplored, although informed of its character by intelligent Spanish officers. Of the Atna or Copper River of the Russians he says nothing, nor did he hear anything of the large river Yukon or Yukehanna.

Vancouver returned to Nootka, and passing along the coast of California he again made some observations of importance; but he was anxious to visit San Diego. That station being central, all his calculations for determining the trend of the coast of New Albion southward of the thirtieth parallel were referred to it. On the way he touched at two points for connecting and correcting his series of longitude determinations, at the island of Guadalupe, the position of which he had previously ascertained, and at Cape San Lucas. There the French expedition under Chappe d'Auteroche for observing the Transit of Venus in 1769 had settled the geographical position with a high degree of exactness; and finding by comparison his results in accordance with those of the Spanish and French observers, Vancouver returned to Europe. He reached England in the summer of 1795.

Cook, La Pérouse, and Malaspina had touched the western coast here and there, but Vancouver was the first in attempting a continuous survey. The Spanish voyages of that period, even when intended to aid in geographical development, were commonly mere summer excursions; but Vancouver took ample time. His explorations employed three summers from the date of his arrival at the northwest in April, 1792, until his departure in September, 1794. Moreover, many of the previous expeditions had been conducted by men of merely ordinary acquirements, captains of merchant vessels and fur traders, like Portlock, Dixon, Marchand, Gray, and others, who of course occasionally made discoveries in a region so little known. Vancouver and his companions possessed the qualities and the means requisite for his purposes. He had been trained under Captain Cook, and was provided with the best instruments then known for making useful observations. The period of his survey was probably the most active in the history of western exploration. He states that in 1792 there were upwards of twenty fur-trading vessels on the coast, and exclusive of his own three ships, the Spaniards had two under Valdez and Galiano; two or three men of war under Bodega y Quadra, sent to Nootka Sound; and the surveying vessel Aranzas, under Captain Caemaño. The total of thirty vessels were conducted by officers of ability, and were accompanied by astronomers. All contributed to make those hitherto obscure regions better known. No former time had gathered such means and forces for coast exploration.

After the disclosures made by Cook in 1786 had directed attention to the Northern Pacific, citizens of the United States, as also some in England, France, and other countries, sent expeditions to that promising region to engage in the fur trade; and some Americans while so employed became as prominent in the history of discovery as Marchand, Meares, and Dixon, of whom mention has been made. Amongst them, the Captains Kendrick, Gray, and Ingraham are best known. But few of the American captains wrote narratives of their voyages. All probably kept log books or journals, but these were not published, and probably have been lost. Of Capt. John Kendrick's papers none, so far as we know, have been published or even preserved. The log book of Capt. Robert Gray was for some time in possession of his heirs, and from the second volume a few extracts were published in Boston, but nothing is now known of the manuscript. The journal of Capt. Joseph Ingraham's voyage in the ship Hope, in manuscript, is in the library of the State Department in Washington City, D. C. It is in four thin folio volumes, very well written, and contains maps of Washington Island, as he calls Queen Charlotte's; also of Vancouver Island,

and of the coast of California, drawn from information given by Captain Gray. Much information in regard to the explorations of the earliest American navigators in this direction is given here and there in the reports of Dixon, Meares, Vancouver, and others.

In the year 1787 some Boston merchants, among whom were Mr. C. Bulfinch and Mr. J. M. Pintard, formed an association for combining the fur trade of the North Pacific with the China trade, in a manner similar to that attempted by the King George's Sound Company of London. They fitted out two vessels the Columbia, and the Washington, with requisites, and gave the direction of the expedition to Captain Kendrick, with whom, in the Columbia, Ingraham went as mate. Gray had command of the Washington, and both were provided with sea letters issued by the Federal Government, and the vessels sailed from Boston on the 30th of September, 1787. Greenhow, in his work on Oregon and California, gives ample information in regard to the voyages of Kendrick, Gray and Ingraham.

In January, 1788, they doubled Cape Horn and immediately afterwards the vessels were separated by a violent storm; Captain Gray, in the Washington, made the northwest coast in latitude 46 degrees north, and reached an inlet or coast opening which he tried but in vain to enter. This was probably the mouth of Columbia River. On the bar his vessel grounded, and was attacked by the natives; but he got off without much injury, and on the 17th of September he arrived at Nootka Sound, the place of rendezvous, where he was soon followed by Captain Kendrick in the Columbia. Occupied with transactions in the fur trade, the vessels remained in harbor during the winter of 1788–'89. The Columbia passed the following summer there, but the Washington made trips to the north and south, exploring the country, and collecting furs, which Gray from time to time deposited at Nootka. In one of his trading excursions (June, 1789) he explored the eastern coast of Queen Charlotte's Island. The western shore had been seen by the Spaniard Perez, in 1774, by the French under La Pérouse in 1786, and by the English, Captain Dixon, in 1787, who had also observed partially along the east side and discovered the broad strait which separates it from the continent. He called the island Queen Charlotte's, and the channel Dixon's Strait.

Not knowing the facts which have just been stated, Captain Gray believed himself to be the discoverer of the great island, the eastern coast of which he saw and followed further than either of his predecessors. He touched also at many points along the shore, and gave it the name of Washington Island, and that designation was in use for some years among the fur traders of the United States.

In one of his voyages from Nootka to the south, Gray entered the strait discovered by Captain Berkeley in 1787, and by him named De Fuca Strait. Gray sailed in it about 50 miles, and understood from the natives that it extended farther north, and then returned towards the Pacific. Gray afterwards related this to Vancouver, but he nowhere states why he did not pursue this promising opening. On his return to Nootka he found Captain Kendrick preparing to sail with furs for China, but after hearing the account given by Gray respecting the Strait of Fuca it was decided that the latter should take the Columbia across to China, while Kendrick remained with the Washington on the northwest coast.

Gray arrived at Canton on the 6th of December, 1789, sold his furs, and returning with a cargo of tea by way of the Cape of Good Hope, reached Boston on the 10th of August, 1790, having carried the flag of United States around the world. What Captain Kendrick did meanwhile is not exactly known. Mr. Greenhow says that on parting with the Columbia he sailed in the Washington to the Strait of Fuca, and was the first navigator who passed through its entire length into the Gulf of Georgia. We will therefore briefly recapitulate what is known certainly in regard to Kendrick's movements, voyages, and fate, after his separation from Gray in the autumn of 1789.

We know that after the separation he engaged in speculations, one of which was the collection of the odoriferous sandal-wood which grows on many islands of the Pacific, and that he took the wood to China. He purchased several tracts of land near Nootka from the Indian chief Magninna, and he was again at Nootka in the summer of 1791. In that same summer Captain Gray returned to Vancouver Island and passed the following winter at Clyoquot Sound. It is probable that he went once or twice to Nootka and there saw and conferred with his former commander. At the

end of the year 1791 Kendrick probably sailed for China, as early in the ensuing year he was seen there by Captain Ingraham, of the American ship Hope, who had been at Macao since the 1st of December. Ingraham had previously sailed with Kendrick as mate, and of course had some conversation with him, as explicitly stated in his journal. Kendrick was killed by an accident at the Sandwich Islands in the year 1793. So far as we know he made no important discoveries, but his countryman, Robert Gray, made several. The anonymous author of three letters from California called "Noticias de la Provincia de Californias" (not to be confounded with the noticias of Venegas) says that the viceroy of Spain had sent out letters to all the missions, directing that notice should be given to the Indians of a certain American-Englishman named Juan Kendrig, sailing about their coast, who had coined and issued money in his own name, and ordering them to seize him wherever they could.

The results of Gray's commercial operations were not large, but he sailed again in the ship Columbia from Boston on the 28th of September, 1790. Several other vessels sailed at about the same time from that port and from New York, bound for the North Pacific, and amongst them was the brig Hope, commanded by Joseph Ingraham, formerly mate of the Columbia.

On his second northwestern voyage Gray arrived at Clyaquot (Vancouver Island) on the 5th of June, 1791, as stated by Greenhow. From thence he went to higher latitudes and returned in the autumn to Clyaquot, where he built a fort (Fort Defiance) and passed the winter of 1791–'92. In the following spring he made a trip southward along the coast of New Albion. At the outset, on the 29th of April, 1792, he met Vancouver and conversed with him respecting the Strait of Fuca and a certain great river (Columbia River), to which allusion has already been made.

After parting with Vancouver Gray went southward. On the 7th of May he discovered in latitude 46° 58′ north an inlet which seemed to promise a good harbor. He entered and found himself in a bay "well sheltered from the sea by long sand-bars and spits." There he remained three days, trading with the natives, and named the place Bulfinch Harbor, in honor of one of the owners of his vessel. This same bay was afterwards called Gray's Harbor by Vancouver.

On the 11th of May Gray was again near the entrance seen by him in 1788, which in his log-book is styled his "desired port," probably because he had great expectations in regard to it. On passing the bar he found the entrance of a large river of fresh water, and remained ten days trading with Indians. According to his log-book the exploration then made was prosecuted to a point nearly 25 miles by the river course. When Gray left he gave to the river the name Columbia River, after his ship. The entrance cape he called Capes Hancock and Point Adams. Soon afterwards he made known at Nootka Sound the discovery of Bulfinch Harbor and Columbia River to the Spanish commander Quadra, and subsequently to Vancouver, who ordered a further exploration of the vicinity.

From Nootka Sound Gray returned, by the way of China, to the United States.

Captain Ingraham, in the ship Hope, left Boston in September, 1790. While crossing the Pacific he touched at a group of unknown islands, and then went northward to Queen Charlotte's. He made a second voyage to that island in 1792. The journal of his voyages is important, as it preserves notices of other American explorers, chiefly of Kendrick and Gray; and from the last named communicates a map of Vancouver Island and the coast of California. In 1793 Ingraham returned, by way of China, to the United States. Subsequently he was an officer on board the ill-fated ship Pickering, which was never heard of after sailing from the Delaware in August 1800.

GALIANO AND VALDEZ, 1792.

An account of the voyage made with the galiots Sutil and Mexicana was published at Madrid in the year 1802. The introduction to the narrative was written by the Spanish historiographer and director of the archives, Navarrete, but the name of the author of the account is not mentioned. The atlas which accompanies it contains charts, plans, and views; and of these the most interesting in this connection are the first plate, showing the coast of California from Cape Perpetua to Cape San Lucas; the second, on which is given the remainder of the coast of California and Vancouver Island; the fourth contains a reduced copy of the old survey of the coast of California by Vizcaino in 1602; and the fifth and sixth give plans of the harbors of San Diego and Monterey.

The most valuable part of this work is the introduction. Compared with Vancouver's the narrative is meager and uninteresting and the charts are inferior, only that of Vizcaino having any special historical interest. They are not equal to the Spanish charts given in the Madrid atlas of that period.

Malaspina was on the northwest coast in the year 1791, but had not time to examine the Strait of Fuca. After his return to Mexico he submitted to the viceroy a plan for the examination of certain important places, and offered to furnish the expedition with instruments from his vessels. This proposition was accepted. The galiots Sutil and Mexicana were fitted out, and placed under the command of the captains Don Dionisio Alcada Galiano and Don Cayetano Valdez. It was the last of Spanish expeditions. The equipment was meager. The vessels were each only about 50 feet long, of less than 50 tons burden, and were navigated by only twenty-four men. Each ship had one chronometer, and a single quadrant did service for both of the vessels. Vancouver was amazed at the sight of what he deemed "so unfit for its destination." Both Valdez and Galiano complained of the inconvenience of such small vessels. They sailed from Acapulco on the 8th of March, 1792, traversed the coast of California at a distance, to avoid the northwest winds, and arrived at Nootka on the 12th of May. From thence they sailed on the 3d of June, and on the 5th entered the Strait of Fuca. Tetacuo, an Indian chief, informed them that Vancouver had been there five weeks earlier, with two large ships.

After visiting the little port of Nuñez Gaona (Neah Harbor), the Spaniards passed to the eastern part of the strait without examining Port Discovery or any other harbor of that vicinity, "because their predecessor Elisa had already seen them." They also passed by Las Bocas de Caomaño (Admiralty Inlet), partly for such reasons as had induced Elisa to leave it unexplored and partly because it was thought that the inlet might lead in a southwestern direction to the inlet of Heceta (mouth of Columbia River), and if so, it could be more conveniently examined on their return.

Hastening therefore to Rosario Strait, to reach as soon as possible the point at which Elisa closed the survey, they sailed for the southern point of Vancouver Island, and having doubled it, kept along the southern shores of the archipelago De Haro, passed the island of Guemes, and entered the Seno de Gaston (Bellingham Bay), to see if there was not a channel leading from it to the north. Finding no outlet they made their way to what Elisa in 1791, had called Canal de Florida Blanca, in hope that it might lead to something yet undiscovered. Elisa had mentioned the existence of a river in that region, which river, according to Vancouver, he called Rio Blancho. There they of necessity repeated Vancouver's movements. Finding turbid water (aguas turbias) and very shallow soundings, they were driven by currents, and went over to the eastern side of Vancouver Island to seek for an anchorage. There they passed several days in different roadsteads to which they gave names, after marking shore lines on the chart.

Elisa had represented the country about the mouth of Fraser River as composed of islands. The ridge of snow-clad mountains to the eastward seemed to be broken in the direction taken by the Canal de Florida Blanca, showing a broad valley; and it was judged that the canal there passed the mountains and led into another sea. But Fraser River was not examined, either by Vancouver, Valdez, or Galiano. In the previous year Elisa appears to have seen something of it, as on his map it is laid down as a river. While Galiano and Valdez were near its mouth, they met the boats of Vancouver and conversed with his officers. The two parties at length joined, and completed the survey of the Gulf of Georgia. The Spanish report states that the Spaniards did the best they could to follow their English friends, but always were somewhat behind in consequence of the inferiority of the Spanish vessels. They entered the Pacific through the strait named on their chart Salida de las Goletas. This is south of the island marked on Vancouver's chart as Island of Galiano and Valdez. On the 27th of August they sailed around Vancouver Island, and on the 31st arrived at Nootka. On the 10th of August Vancouver entered the Pacific, and after making some explorations at the north of the island, reached Nootka on the 28th of the same month. The English certainly preceded in navigating entirely around the island; but it was agreed between the commanders that it should bear the name Quadra and Vancouver Island.

On the 1st day of September Galiano and Valdez left Nootka to cruise along the coast of California towards Monterey, and to survey places pointed out by their instructions. Like Van-

couver, they heard at Nootka of a newly discovered port (Gray's Harbor), and of a large river mouth (Columbia River), discovered by the American Captain Gray. The intention was to examine both, but owing to the bad condition of their vessels the purpose was found impracticable. With their small craft and unfavorable wind and weather they made their way south, touched at San Francisco, Monterey, and San Diego, and arrived at San Blas on the 23d of November. Humboldt mentions these Spanish officers as "able and experienced astronomers"; but they recorded no observation or discovery worthy of mention.

In the Strait of Fuca the commanders Galiano and Valdez had been preceded by Quimper, Elisa, and Vancouver, and in the Gulf of Georgia they were assisted by the English. Spanish charts with early designations were published in 1802, but Vancouver's charts, much superior in detail, came out in 1798, and thus were established the names which he had attached to places in the region.

CAAMAÑO, 1792.

Brief mention will suffice of an expedition by Don Jacinto Caamaño in the Spanish ship Arauzazu. This voyage, like that of the Sutil and Mexicana, was ordered by the Viceroy of Mexico, Count Revillagigedo, and was suggested by Malaspina, who judged that somewhere about Port Bucareli, in latitude 56 degrees north, and behind Queen Charlotte's Island might be found the open water of Admiral Fonte.

Caamaño left San Blas on the 20th of March, a fortnight later than Galiano and Valdez. Like them he traversed the coast of California, and he arrived at Nootka on the 14th of May. From thence he went north and passed around Queen Charlotte's Island. Many observations were made on the neighboring shores of the American continent. These, as Humboldt remarks, were useful to Vancouver, but they are beyond the boundary of our present research. On his return in October, 1792, Caamaño, sailing with northwestern winds along the coast of California, touched at several points, but seems to have added nothing to the stock of information. He reached San Blas on the 4th of November, where, a fortnight after, Galiano and Valdez arrived with the Sutil and Mexicana. In these the Spanish Government ended a long series of exertions for exploring the northwest coast. Beginning with Ulloa and Cortes, a period of nearly three hundred years had been marked by activity in geographical development.

CAPT. W. R. BROUGHTON, 1795–'98.

Broughton's voyage was from its outset very unfortunate. He had been with Vancouver in the North Pacific, and, as already stated, was in command of one of the vessels (the Chatham) of Vancouver's expedition. After examining the Columbia River, Broughton went overland across Mexico by direction of Vancouver, with communications respecting transactions with the Spanish authorities at Nootka Sound. Affairs were settled amicably by the willingness of Spain to yield possession to Great Britain. The surrender had been refused during the stay of Vancouver.

At the end of the year 1793 the ship Providence was put in charge of Broughton. He was directed to proceed to the Pacific, visit Nootka, and receive possession of that port in case the restitution to Great Britain had not been previously made. He was also instructed from the Admiralty to survey the western coast of South America between Valdivia and the Strait of Magellan "upon the supposition that Captain Vancouver, who had similar orders, would not have been able to fulfil them."

After many delays Broughton sailed from England in February, 1795, before the return of Vancouver, and arrived at Nootka (from the Sandwich Islands) on the 15th of March, 1796, and found the place at which activity had been manifested for years almost deserted. An Indian village was on the site of the early Spanish settlement, and several letters, delivered by the Indian chief Maquinna, informed Broughton that the Spaniards had delivered the port to the English Lieutenant Pierce. It was also stated that Vancouver had sailed for England.

His vessel needing repairs, Broughton could not leave Nootka until the 21st of May. He then sailed, and visited Monterey, but received no attention from the Spanish officers there, and was not even allowed to set up a tent on shore for the astronomical observations needful to settle the

rates of his watches. He ascertained definitely that Vancouver had left about eighteen months before, and that his two ships had been in good condition at Monterey. Further, that he had sailed from Valparaiso to survey the lower part of the western coast of South America. Broughton, thus apparently left to his own discretion, decided to survey part of the coast of Asia, and to that end he sailed from Monterey on the 20th of June for the Sandwich Islands. His ship was wrecked, but he made some useful surveys in the region to which La Péronse sailed from California. He returned to England in 1799.

LEWIS AND CLARKE, 1804–'06.

In January, 1803, President Jefferson sent to the Congress of the United States a confidential message recommending the examination of the interior and far western region pertaining to the republic. The suggestion was approved, and he commissioned Captains Meriwether Lewis and William Clarke to explore the Upper Missouri River and its principal branches, and then to seek and trace to its termination some river, the Columbia, the Oregon, or any other which might offer the most direct and practicable water communication across the continent for the purposes of commerce.

Soon after the cession of Louisiana to the United States the travelers named set out westward from Saint Louis, with a party of about forty men, on the 14th of May, 1804. They went up the Missouri to the mouth of Yellowstone River, and the upper heads of the last mentioned stream were explored in 1805. In July they crossed the Rocky Mountains and reached the headwaters of the Columbia. Following its course, they arrived at the falls of the river in the Cascade Mountains, and on the 2d of November came to tide-water at the point reached by Broughton, (Vancouver's lieutenant) in 1792. Five days afterwards Lewis and Clarke reached the eastern extremity of the estuary of the Columbia, and, "the fog clearing off, enjoyed for the first time the delightful prospect of the ocean." The broad Pacific was before them. On its waters they rowed in the vicinity of Gray's Harbor, which they called Shallow Bay. Cape Disappointment and the adjacent coast were examined. They rounded Tongue Point (naming it on their map Point Williams) and selected for their winter encampment a place near their river Netul, which on later maps bears the name Lewis and Clarke's River. This empties into Young's Bay. There, on the 8th of December, they commenced building a camp, which on completion was named Fort Clatsop, and after passing the winter they began their homeward journey on the 23d of March, 1806.

Throughout the winter they had much intercourse with the Indians, and made many hunting and exploring excursions to the interior and along the coast. They noted the winter climate, the rainy season of that region, the animals, and indigenous productions, many of the vegetables being unknown at the east.

Amongst Indian tribes inhabiting the shores of the Columbia River were the Clatsops, Killamucks, Chinooks, and the Cathlametes.

Of the excursions made, one of the most interesting was led by Captain Clarke. On that journey they ascended on the 8th of January, 1806, a high and rugged headland of the coast. It was named Clarke's Point of View, and is doubtless identical with Tillamook head on charts of the United States Coast Survey.

Before leaving the mouth of the Columbia Lewis and Clarke put on paper a short memorandum of their journey to the Pacific, distributed copies to the Indians, and posted a copy at Fort Clatsop. One of these papers was subsequently given by the natives to Captain Hill, an American, who in the course of the summer of 1806 was on the Columbia River. The paper went to China, and was seen by Americans in Canton before the close of the year.

On the 23d of March Lewis and Clarke started eastward, following at first the route pursued in approaching the Pacific. The company afterwards separated into parties to examine valleys of the Upper Columbia, but the parties were rejoined at the mouth of the Yellowstone, and all reached Saint Louis on the 23d of September, 1806. By this memorable expedition an immense river system and a large section of the American continent were made known to the world. It gave impulse to movements, American as well as English, both by sea and land. Many profited by the facilities pointed out by Lewis and Clarke.

RUSSIAN EXPEDITIONS, 1803–'06.

The first expedition from Russia was sent out at the instance of the Chancellor Count Romanzoff. Two ships, the Nadeschda and the Newa, under command of Capt. A. T. von Krusenstern, sailed from St. Petersburg in August, 1803. The Newa was in charge of Capt. U. Lysiansky, and each vessel pursued its own course, making different explorations in the northern parts of Russian Asia and America in the years 1804 and 1805. With the expedition went as envoy to the Emperor of Japan, the Russian Chamberlain Von Rezanoff. But that Asiatic power strictly maintained its system of non-intercourse with other nations, and declined the proposed mission, and the envoy in consequence was taken to the harbor of St. Peter and St. Paul in Kamtchatka. There some letters from St. Petersburg induced him to visit the Aleutian Islands and northwest coast of America. He was accompanied by the German naturalist Von Langsdorff, who afterwards published a history of the voyage. The passage was made in the galiot Maria, a slow sailing vessel belonging to the Russian Fur Company from Petro Pawowsk. Starting on the 25th of June, 1805, the party passed along the Aleutian Islands, Alaska, and Kadiak, to Norfolk Sound (Sitka), and there arrived on the 7th of September. Baranoff, the governor of the Russian establishments, had some years earlier taken possession, had built a fort at Sitka, and made it the central station of Russo-American dominion, which until then had been at Kadiak. He assembled at Sitka many Russian fur-hunters and Aleutians, and the company was further augmented by the crew of the Maria, who intended to pass the winter in port. But the resources of the young and poorly provided colony could not sustain the dependent number. A disastrous famine ensued; sickness prevailed and threatened the establishment with ruin, when, fortunately, the American vessel Juno, from Bristol, R. I., arrived with a cargo of provisions. These were immediately purchased, but the famine was thereby only averted for a time. At length Baranoff and Rezanoff purchased the American vessel, in order to bring from California what might be indispensable for supporting the colony. The command of the Juno was given to the Russian lieutenants Chwosdoff and Davidoff. Rezanoff and the naturalist, Langsdorff, went with them, and the ship left Sitka for San Francisco on the 8th of March, 1806. The passage was made tedious by sickness amongst the Russian sailors, all of them being sick with scurvy. They nevertheless tried to make some coast examinations, and attempted to enter the mouth of Columbia River, where the Russian plenipotentiary thought of founding an establisment. An opening on the coast, supposed by them to mark the entrance of that river, was examined with boats, but it was soon found to be the inlet which Vancouver had named Gray's Harbor. Some days after (March 31) the Juno was at anchor off Cape Disappointment with a very sick crew. Next day they tried to enter, but observing that the eastern horizon was strongly marked with surf, and having been driven by the currents towards Cape Adams, it was deemed advisable to get away, and take advantage of the favorable northwest wind. They therefore sailed direct for San Francisco, and entered that port on the 8th of April.

The transactions of Von Rezanoff and his officers at San Francisco were mostly commercial and political. At the Spanish mission offers were made to exchange the woolen stuffs and other goods bought with the cargo of the Juno for flour, meat, and vegetables, and to establish by treaty a lasting commerce between the missions and the Russian settlements. They had with them Vancouver's maps, which were found serviceable, and also a tracing of the survey made by La Pérouse at San Francisco Bay. Langsdorff made some useful observations in geography and natural history. He visited the south part of the bay in a boat, and he is the only authority we have in regard to the condition of the Franciscan missions in 1806, and also respecting their undertakings in earlier years.

This expedition is moreover of interest because the Russians, failing in the plan for establishlishing commercial intercourse with the Californians, conceived the idea of planting a colony of their own on the coast. On the 12th of May the party left San Francisco, and without delay returned with their provisions to Sitka, where they arrived on the 20th of June. This was the first Russian expedition to California of which we have accurate information.

FUR COMPANIES, 1806–'21.

The expedition of Lewis and Clarke was noticed with deep interest by explorers and fur-traders. Some existing companies revived and others were organized for prospective gains in the recently opened country.

The Northwest Company, then active and enterprising, had, while Lewis and Clarke were in motion, sent parties towards the Rocky Mountains, and had crossd them in 1793, when their agent, Mr. A. Mackenzie, arrived on the Pacific coast. Another agent, Mr. Simon Fraser, crossed the mountains in 1806 at the source of the river which bears his name, and established a settlement, which was called New Caledonia. Mr. D. W. Harmon traveled as chief agent of the Northwest Company during several years beyond the mountains. Though his book (published in London in 1820) is simply written, it contains interesting information in regard to the country east of Vancouver Island, and of that around the Strait of Fuca, and also the Columbia River. It is in many matters connected with discoveries in that region the only source of authentic information. The map accompanying it is the first on which Fraser River is laid down in its true course.

A Missouri fur company was formed in 1808 for settlements on the Upper Missouri, and one of its agents, Mr. Henry, founded a post on one of the branches of the Upper Columbia, but the post was soon abandoned.

In 1810 Captain Smith, from Boston, entered the Columbia and built a house 40 miles above the mouth, but the house was destroyed within twelve months, as stated in Greenhow's "Oregon and California," page 291.

At the period here under notice John Jacob Astor, of New York, established the Pacific Fur Company. He was a personal friend of President Jefferson, who had originated the expedition of Lewis and Clarke. Mr. Astor enlisted expert Canadian, Scotch, and American travelers and sailors who had been in the service of the Northwest Company. He sent out in 1809 the ship Enterprize, under Captain Ebbets, to make observations at several places on the northwest coast of America; but no detailed account has been given of that voyage.

On the 2d of September, 1810, a second sea expedition, in the ship Tonquin, was sent to the mouth of Columbia River by way of Cape Horn, under Capt. T. Thorne. The best account of this expedition is given in "Adventures on the Columbia River, by Ross Cox." That book details events which occurred in Oregon between the years 1810 and 1816. Another is entitled, "Relation d'un voyage a la cote Nord Ouest dan les années, 1810–1814, par Gabriel Franchere. Montreal, 1820." Ross Cox and Franchere were, for the most part, eye witnesses of what they describe. The first named came to the Columbia by sea, the other went across the Rocky Mountains. A well written account of the operations of the Pacific Company is given by Greenhow.

A land expedition under the chief agent, Mr. Hunt, set out from Saint Louis in January, 1810, going by way of the Missouri River.

An expedition in the ship Beaver, under Capt. Cornelius Sowles, sailed in October, 1811. These were all attended by men expert in their several ways as navigators, scientific observers, and hunters. Ross Cox went as clerk in this expedition.

While the Astorian parties were on their way the Northwest Company also advanced towards the Columbia by sending out (in 1810), by way of the Peace River, a company from Canada under the surveyor and astronomer David Thompson. All these parties arrived successively on the Pacific in what was then called the Oregon country. The English detachments were at the north, the Americans farther south, and especially at the mouth of the Columbia River, where, in the spring of 1811, they built Fort Astoria in the vicinity of the cape named by Broughton Point George.

Thompson explored the region watered by the main branch of the Columbia. He followed part of the route of Lewis and Clarke, corroborated and in some particulars corrected their reports, and gave an improved map of the sources of the Missouri as well as of the Columbia River. Much information in regard to this expedition was given by Washington Irving in his "Astoria, or Anecdotes of an Enterprise beyond the Rocky Mountains. Philadelphia, 1836."

In August, 1812, the ship Beaver was sent from Astoria towards the Russian establishments but the war that ensued between the United States and Great Britain checked the operations of

the Pacific Fur Company. Disasters followed. The ship Tonquin was wrecked and her crew was murdered by savages. The ship Lark, sent from New York by Mr. Astor in the year 1813, was wrecked at the Sandwich Islands, and much suffering was endured by the land parties.

While the agents of the Pacific Fur Company held possession of the fort at Astoria (from June, 1811, until October, 1813) several parties were sent out from thence, but all were directed to the upper branches of the Columbia. Mr. Astor intended "to have coasting vessels of his own at Astoria, of small draught of water, fitted for coasting service," but that purpose was not accomplished. The people there were without means for navigating the coast, with which they consequently remained entirely unacquainted, while the interior regions were well known to them. Finally, when threatened by the presence of a British sloop-of-war in the Pacific, the agents of Mr. Astor, on the 16th of October, 1813, sold the fur establishment to the Northwest Company. Only a month after the transfer the sloop-of-war Raccoon, Captain Black, entered Columbia River, the British flag was raised, and the name Astoria was changed to Fort George. After the restoration of peace the fort was again (1818) in possession of the United States. Mr. Astor for a time contemplated the revival of his western projects, but the Northwest Company had in the interval occupied the valley of the Columbia River and its chief tributaries, and were carrying on trade in the neighboring regior. Official aid could not be obtained, and without such aid it was deemed impossible to dispossess the intruders.

Citizens of the United States were at this period settling and improving the fertile lands of Ohio and the Mississippi Valley. The distant Pacific region had become less attractive as the sea otters diminished in number; and moreover the fur yearly decreased in price. The Federal Government, however, repeatedly asserted its right to that part of North America.

In the year 1821 the fur companies, after being at enmity as rivals, were united under the name of The Hudson Bay Company, and this union gave strength to the British interest on the northwest coast.

The voyages and travels of Franklin, Richardson, Parry, and others, undertaken by order of the British Government, and favored by the Hudson Bay Company, aided much in geographical development near the Rocky Mountains. New roads were opened to the west, but their views were chiefly directed to the north. In a peaceful way the agents of the company in time occupied nearly the whole Pacific slope between California and the Russian possessions, and all the country drained by the Columbia, Fraser, and other rivers. These agents, says Mr. Greenhow "were now seen throughout the whole northwest, from the Atlantic to the Pacific, hunting, trapping, and trading with the aborigines. Their boats sailed on every lake and river, and their trading posts and fortifications were in every important location. For many years scarcely one American citizen was to be seen west of the Rocky Mountains; nay, they were obliged even to withdraw their vessels from the northwestern coast."

The Hudson Bay Company had their principal residence on the Columbia, in Fort Vancouver, founded in the year 1824, at a considerable distance from the mouth of the river. This became the center of operations in what they called The Columbia Department (now Oregon and Washington), but they established some trading post in every position of importance, from the north, even beyond the Russian settlements, and to the southward at San Francisco and Monterey. They resorted also to the Sandwich Islands. Mr. Astor's idea of a coasting fleet was realized by this company. Small vessels to explore the inlets and ports along the coast were provided, and in the interval between the years 1830 and 1840, they had in service five corvettes of about 300 tons each and a small steamer (the Beaver), besides two larger sea-going vessels for trading between Columbia River and London.

In successive excursions the Canadian hunters extended their trading district from the Columbia southward to the Sacramento, and on their way found several rivers the banks of which were inhabited by distinct tribes of Indians. Some of the names then given to streams are still retained, as Umpquah Klamath, &c. Commodore Wilkes, whose exploring parties from the Columbia River in 1841 partly followed the tracks opened by the Canadian hunters, gives much useful information in regard to this region in his "Narrative of the United States Exploring Expedition," Vols. IV and V. The French traveler, Duflot de Mofras, who was journeying there in the year

1841, made the matter a subject of investigation, and gave much information in his published work entitled "Exploration du territoire de l'Oregon. Paris, 1844."

The Hudson Bay Company sent some parties to explore the lower reaches of rivers which had been crossed by the Canadian hunters, and to build small forts at suitable places. It may be said that at this time they were the only navigating parties on the coast. But the company kept no account of their land operations. De Mofras says that Captain Brotchie, in the service of that company, was very active; he was one of the most experienced officers on the coast, and in the year 1836 made a coasting voyage in the schooner Cadborough to the south of the Columbia River to examine the entrances of the little rivers Sagousta, Killimon, Yacoun, Nehalem, Umpquah, and Klamath. A fort was erected near the mouth of the Umpquah in the year 1837.

An important branch of the operations of the Hudson Bay Company was their exploration at the north, towards the Strait of Fuca and Vancouver Island. In that direction they founded posts after the year 1830. At that time Fort Nisqually was founded at the head of Puget Sound, and in time it became their chief station in that quarter. The eastern coast of Vancouver Island was also at that period further explored and partially settled. Coal was found on the island in the year 1834, and by means of the little steamer Beaver, already mentioned, steam navigation was used for examining the nooks and corners of that vicinity which had not been seen by Vancouver, Valdez, or Galiano.

In the year 1828 Fraser River was for the first time navigated in canoes from its source to the mouth by Sir George Simpson, governor of the territories of the Hudson Bay Company. Other rivers were traced, and in particular the Stikine, which was first examined by the traveler McLeod. These and other streams of the northwest had not been explored by Vancouver. The center of these movements was Fort Vancouver, but animation was given by the company's chief agent in the Columbia district, Dr. John McLaughlin. That energetic man deserves mention in the history of exploration; he crossed the Rocky Mountains with the Northwest Company, and in the year 1824 built Fort Vancouver. It was at his instance that all the enterprises here mentioned were undertaken, and (says De Mofras) to him the Hudson Bay Company owed principally the advancement of their affairs and the extension of their commercial dominion on the Pacific coast. He ruled, so to speak, in those regions for more than twenty years.

RUSSIAN SETTLEMENTS, 1812–'41.

The Hudson Bay Company and the Russian Fur Company so greatly extended their settlements that at one time the two corporations seemed to divide the entire region between themselves.

After the year 1806, when the naval expedition of Rezanoff and Langsdorff came down from the north to San Francisco and attempted to establish there a commercial connection with the Spanish missions, those regions had not been forgotten by the Russians, and as they always needed provisions they concluded to settle at some point on the coast not already occupied, and there cultivate ground on their own account. For this purpose they chose Bodega Bay, north of San Francisco, which had not been reached by the Spanish missions. M. Baranoff, the enterprising Russian governor, sent in the year 1812 an expedition, consisting of one hundred Russians and a number of Aleutians, in a fleet of barks commanded by M. Kuskoff. They sailed from Sitka southward as far as Port Bodega. There they made a settlement, which in course of time extended along the coast nearly 40 miles, and in that stretch were a fort, Russian farm-houses, magazines, chapels, fruit gardens, and ground under cultivation. The Spanish authorities repeatedly protested against this Russian encroachment, but were unable to resist it by force. The Russians consequently retained possession for nearly thirty years. They made yearly boat expeditions from Sitka to Bodega Harbor, and from thence gradually extended their journeys for hunting on land and for taking seal along the coast. They went into San Francisco Bay and killed the sea otter in sight of the Spaniards, who, if able to resist them, had no boats.

In the year 1826 the Russians possessed themselves of the Farallones, where they established a little colony of Kadiacks and held those islands so long as seals and the sea-otter were to be found there. They proceeded south to the Santa Barbara Channel and occupied some of the

islands. The island of San Nicolas is particularly mentioned as the usual hunting ground of the Russians. Captain Beechy and Sir George Simpson make mention of these movements. It appears that the Russians were assisted in some of these expeditions by Boston men or American mariners. In Irving's Astoria, we read: "The American captains engaged in this particular department of west coast trade used to come to New Archangel, the principal place of the Russian colonies. Here their ships would be furnished with a little fleet of canoes and a hundred Kadiack hunters, and fitted out with everything necessary for hunting the sea otter on the coast of California. The ships would ply along the Californian coast from place to place, dropping parties of hunters in their canoes, and leaving them to depend upon their own dexterity for maintenance. When a sufficient cargo was collected they would gather up their canoes and hunters and return with them to New Archange., where the American captain would receive one-half the skins for his share."

The Russians gave to places on the coast names of their own. Bodega Bay was called by them Port Romanzoff; Bodega Head was their Cape Romanzoff; the river San Ignacio they named Avatscha River; the river San Sebastian is their Slavianka River; and the point now known as Fort Ross was in their designation Cape Sievero Zapadnoi, that is Northwest Cape.

As their baidarkas were very small vessels and the Kadiacks expert fishermen, they probably, in the course of those thirty years, gained intimate knowledge of little inlets which had never been seen either by the Spaniards or Vancouver. It is therefore unfortunate that we do not know what names were given to them. It is also to be regretted that their scientific observations and charts of the region are lost, for it can scarcely be doubted that such existed when we read the description given by a French traveler of the cultivated society of talented officers once assembled on the shores of Port Romanzoff.

The Russo-American Company is said to have derived large gains from the southern settlements; and thus the Russian Government was induced to form plans for dominion. One of the Sandwich Islands was seized, and in the year 1821 a ukase issued by which the Russian Government was declared to be in possession of the coast northward of Vancouver Island, and all foreigners were prohibited from approaching within 100 miles. These measures were somewhat like those of the Spanish King who soon after the Middle Ages attempted to make the Pacific Ocean a *mare clausum*. But the protests of the United States and Great Britain against the singular proceeding, and the subsequent treaties between those powers and Russia in 1825 and 1826, made the decree which has been referred to, of no effect. The southern boundary of the Russian empire on the northwest coast of America was finally fixed, and in the year 1841 the Russian Commercial Company gave up their establishments on the coast of California. The good sites for sealing and sea-otter hunting had been exhausted, and the necessity for seeking provisions so far south was removed by the operations of the Puget Sound Agricultural Company, which had cultivated land nearer to the Russian colonies. All the circumstances had changed; another nation was approaching California, and the Russians sold all the property to which they had claim.

MISSIONARY TRAVELS.

The Franciscan missionaries did not extend their explorations in California either along the coast or towards the interior. They were able to do little, as they had not in San Francisco Bay any vessel, or even a boat, at their disposal. When a ship arrived at the Golden Gate it was hailed by a speaking trumpet and was obliged to send a boat on shore to the fort. Expeditions to the eastern side of the bay were made on horseback round the basin, and the rivers were examined in the same manner. This appears almost incredible, yet Vancouver in 1792, as well as Langsdorff in 1806, and others mention what has just been stated. From this it may be concluded that nothing could be done at that time for the hydrography. Langsdorff says (in 1806) that Spaniards had traced the river Sacramento nearly 90 leagues, but only along one of its banks, never having been able to examine the right bank for want of boats. Of the source of the river nothing was known, and even the sea entrance was doubtful. But land excursions were made yearly from the principal Spanish posts, Monterey, San Diego, and San Francisco, to procure Indians for service at the missions; and at the same time efforts were made to Christianize them. These jour-

neys of course tended to enlarge knowledge in regard to the territory. Some appear to have been made for establishing communication between Santa Fé, in New Mexico, and the upper coast of California. In 1785 the Governor of that province, Don Pedro Fages, had proposed an expedition from Monterey, or the river of San Francisco, to the east, with a view of communicating with the province of New Mexico. It seems that now and then a journey was made expressly for discovery. Thus we read that in the year 1811 two Franciscan friars, the Fathers Fortuni and Abello, traveled along the course of the San Joaquin River and explored its valley, excepting the upper parts. No doubt the history of these excursions would be interesting, but no writers such as Fathers Crespi, Palou, and De la Pena were left in California to make journals.

Langsdorff says that while he was at San Francisco a sergeant and corporal with thirteen soldiers arrived from the east, having just returned from travel. They asserted that they had penetrated into the country between 80 and 90 leagues, and had reached the vicinity of the Sierra Nevada. In the same direction another party went soon after under Don Luis Arguello and Father Joseph Uria.

CAPT. F. W. BEECHY, 1827.

While continental war continued in Europe the British Government gave no attention to the question concerning a northwest passage from the Atlantic to the Pacific, but after the year 1816 the subject was again taken up. Maritime parties explored Baffin's Bay, including its northern branches and inlets. In 1821 Captain Parry sailed into Lancaster Sound, and went westward somewhat farther than either of the navigators who preceded him. After his return a combined land and sea expedition was planned, and he was again sent to Lancaster Sound, with directions to pass on westward, if possible, to Bering Strait. Captain Franklin went overland through the central parts of Arctic America to explore the coast of the frozen sea. It was, moreover, resolved to send a ship through the Pacific to Bering Strait to supply Captain Parry, if he shou d arrive there, with provisions, and to bring home the land party of Captain Franklin. The ship Blossom was selected for the service, and Captain Beechy was assigned to command. As the estimated time of arrival at the strait was ample, he was instructed to explore and survey parts of the Pacific deemed most important for navigation and within reach of his intended course. The ship was therefore fitted with appliances for surveying, and was accompanied by several officers of ability, one being Lieut. Edward Belcher. Only general directions were given in regard to the exploration of our coasts, and discretionary power was allowed in the choice of places for procuring provisions and water. So also in regard to the return voyage, of which liberty Captain Beechy so availed that he made a prolonged stay on the coast of California, and on his way home passed along the shores that had not been visited by any scientific expedition since the time of Vancouver. His instructions included that particular note should be made of the differences of longitude as given by his chronometers.

Captain Beechy made the "Highland of New Albion" on the 5th of November, 1826, as he was returning from his visit to Bering Strait. He passed with Bodega and Point Reyes in view, and soon entered San Francisco Bay, where, by sounding, he discovered some dangerous rocks, one of which he named after his ship Blossom Rock. Without delay he sounded and completed a survey of the port and bay, and by astronomical observations corrected the position of the place. He then proceeded to Monterey, where he was for a time occupied in a similar way. On the 5th of January, 1827, he sailed for the Sandwich Islands. In the course of the same year, on his return voyage to Europe, after a second summer sojourn at Bering Strait, Beechy was again in San Francisco Bay, and also at Monterey, but only for a few days in November and December. In the report of his voyage he treats at length on the Spanish missions, and in regard to the Indians of California. Beechy's determinations for geographical position compare well with the final results reached in the operations of the Coast Survey.

SIR EDWARD BELCHER, 1836-'42.

The British Government previous to the year 1836 had been active, and several expeditions were sent to explore the coasts of America. Captain King and Captain Fitzroy, in the ships

Adventure and Beagle, were occupied nearly ten years (1826–1836) with the survey of the Strait of Magellan and the adjacent southern part of the western coast of South America.

In December, 1835, another expedition was ordered by the Lords of the Admiralty, to continue the survey of the western coast of America north of the point where it was discontinued by Fitzroy. "The impulse which American commerce had received from the revolutions in the Spanish colonies had brought English vessels into contact with every port from Valdivia in the south to Columbia River in the north, and particularly the western American commerce had long been in need of good charts." Two vessels, the Sulphur (British sloop of war) and the schooner Starling, were therefore fitted out, and Captain Beechy, who had been on the western coast, was placed in charge of the expedition. The Starling was intrusted to the command of Lieutenant Kellet. Captain Beechy conducted the voyage as far as Valparaiso, but being constrained to return to England as an invalid, Captain Belcher was commissioned to replace him, and after crossing the Isthmus of Panama, Belcher joined the squadron on the Pacific in February, 1837. He sailed at once by way of the Sandwich Islands, and from thence reached Prince William Sound in August. His instructions directed that "a general chart should be made of California," and he was advised "to devote some time to the bar of Columbia River, and to its channels of approach, as also to its inner anchorages and shores." In touching the district visited by Vancouver (called the northwest coast) care was to be taken to verify the longitude at two or three of Vancouver's principal points which differ materially from the longitudes assigned by Señor Quadra and the Spaniards. From the latitude of Mount Saint Elias "the survey again might be pursued to the southward and along to the shores of Mexico and Guatemala alternately changing the ground according to the periodic change of weather." In accordance with these instructions, which gave liberty in regard "to the selection of ground and in respect of the division and disposal of his time," Belcher extended surveying operations twice along the northwest coast from Mount Saint Elias to Cape San Lucas, once in the summer of 1837 and again in the summer of 1839. As already stated he was in the latitude of Mount Saint Elias in August. He passed some time near the Russian settlements, and early in October was at Nootka, where he found an Indian prince named Maguilla or Maguinna, a descendant of the former chief of that name. From thence he went southward, passed the Columbia River entrance, as the weather was boisterous, and kept on to San Francisco, where he dropped anchor in Yerba Buena Bay on the 19th of October.

San Francisco Bay had been explored by himself and Captain Beechy in the year 1827, when they were in the ship Blossom, but that survey was ended at Karquines Strait. On the 24th of October Captain Belcher started from Yerba Buena with the tender Starling, a pinnace, two cutters, and two gigs, to explore the navigable channel of the Rio Sacramento. He carried the Starling in as far as Suisun Bay, and with his boats in the course of five days ascended the river about 150 miles, including the curves of the channel. The limit of progress with boats he named Victoria Point. In returning he made a trigonometrical survey of the course of the river and was thus engaged during twenty days. On the 24th of November he again reached the ship Sulphur, and ten days afterwards arrived at Monterey. Only a few days previous to his arrival the French frigate La Venus had cleared from that port. On the 11th of December Captain Belcher passed near Guadalupe to land, and on the 16th reached Cape San Lucas, where he closed his first surveying cruise along the coast of California.

During the two subsequent years Belcher was occupied on the coast of the Pacific more to the southward, but he returned by way of the Sandwich Islands in the spring of 1839, and was at Sitka early in July. Near the close of that month he entered Columbia River and surveyed its course and channel up to Fort Vancouver. Two months were occupied in that work. The channel at the south entrance he called Queen's Channel. On the 14th of September he left the river, but on the way, toward San Francisco, he sent Lieutenant Kellet with the Starling into Bodega Bay with directions to complete a survey. The report mentions that the work was done "as soon as the fog permitted."

On the 5th of October Belcher reached Monterey, and on the 7th was in the Santa Barbara Channel. Partial surveys were made off the anchorage and at the approaches to San Pedro Bay. From thence the Starling was dispatched to examine the island and anchorage of Santa Catalina. Belcher meanwhile visited the harbor of San Juan and San Diego Bay. He made a careful

survey of the last-mentioned bay, and near the close of October left the coast and never returned. Kellet was there again in command of a surveying vessel, and in the year 1847 made some surveys in the strait of Fuca, the results of which are given on the admiralty charts.

FRENCH EXPLORATIONS, 1820–'42.

Mention has already been made of the French voyages to the northwest coast under La Pérouse and Marchand. After these, the French revolution restrained maritime action in the Pacific, but on the restoration of the Bourbons, or soon following that event, sea enterprises were resumed. Each voyage doubtless had some influence in geographical development, but it would be needless to trace them without access to the separate narratives, even if such narratives were in existence. In chronological order they were—

1. A voyage around the world by Roquefeuil in the year 1820.
2. A voyage around the world in the frigate La Coquille.
3. A circumnavigation of the globe in the frigate La Thétis and the corvette l'Esperance, in the years 1824–'26, under Baron Bougainville.
4. A circumnavigation of the globe in the corvette La Favorite in the years 1830–'32, under command of M. La Place.
5. A voyage around the world in the years 1836 and 1837, in the corvette La Bonite, commanded by M. Vaillant, Captain de Vaisseau.
6. A voyage around the world in the frigate La Venus, 1836–'39, by Abel du Petit Thouars.
7. A circumnavigation of the globe by the frigate La Artemise in 1837–'39, under command of M. La Place.
8. A voyage around the globe in the corvette La Danaide, commanded by Capt. D. Rosamel, in 1839 and 1840.

Most of these expeditions touched at the usual places and ports of the North Pacific explorers, China, the Sandwich Islands, and California.

Between the years 1837 and 1840 there was annually a French expedition in the harbor of Monterey. All of them made observations occasionally, and some surveys of harbors, capes, and bays.

As the most interesting of these voyages in relation to California, we may point out those of Du Petit Thouars (1837), La Place (1839), and Rosamel (1840).

French or Canadian missionaries also who traveled in the Oregon country advanced the knowledge of its geography by publication. The journey of Blanchet and Demers, in 1838, was one of that kind, when they founded several Roman Catholic missions amongst Canadian settlers on the shores of Columbia River.

During the excitement incident to the contested possession of Oregon the French Government sent M. Duflot de Mofras on a diplomatic mission to Mexico (1840–'42) with instructions to visit the western and northwestern provinces of Mexico, Upper and Lower California, the Russian establishments, and the Oregon Territory. He traveled in each of the places indicated, and on the coast met the United States Exploring Expedition under Captain Wilkes. De Mofras collected much interesting information, and gave the results in a well-written work. He gives particulars respecting the journeys of the French Canadians under the auspices of the Northwest and Hudson Bay Companies, and regards them as French explorations. They may be so called, as the French began the march of discovery from the Saint Lawrence towards the Pacific. By their help as subjects of England the British company brought that movement to a satisfactory conclusion.

The voyage of Captain Rosamel and the land expedition of De Mofras to California were the last which can be properly named as French undertakings in that direction.

UNITED STATES EXPEDITIONS 1820–'47.

After the unfortunate experience of the Pacific Fur Company, citizens of the United States for a time lost sight of the far northwest. A pause of some years ensued, but at length attention was directed southwest, to the head of Colorado River, to New Mexico, and occasionally to the southeastern branches of Columbia River, where they were not likely to come in contact with the Hudson Bay Company. It will suffice to point out the progressive steps taken in that direction.

In the year 1820 Maj. Stephen Long went to the Rocky Mountains, to the heads of the Platte and Arkansas Rivers, and to New Mexico. Regular trade was soon established between the Mississippi and Rio Colorado, between Saint Louis and Santa Fé. Nearly every summer after the year 1823 large caravans passed between those two places, and many American trappers and hunters arrived at different points on the Upper Colorado. Of these the most successful was Mr. W. H. Ashley, who conducted or sent in the period between 1823 and 1827 several bodies of trappers, with horses, beyond the Rocky Mountains to the headwaters of the Colorado and Columbia Rivers. From thence he made several excursions westward, and sent detached parties to different branches of the western waters. He discovered the South Pass, and was the first American who saw Utah Lake and Green River and other branches of the Colorado. Mr. Ashley was succeeded by Messrs. Smith and Soublette, who bought his interests and pushed operations beyond the Rocky Mountains, and also along the southeastern branch of the Columbia, in the years 1827 to 1829. Mr. Smith was the first American who traversed central California from the Rocky Mountains towards the San Joachin River, San Francisco, and the Pacific; but he recorded no astronomical observations. He was murdered in the year 1829 by Indians near Utah Lake. On his map of the northwest De Mofras approximately represents the route taken by Mr. Smith.

In the years 1828 and 1829 another American traveler, Mr. Pilcher, a member of the American Fur Company, followed the southern branch of the Columbia, journeyed along the northern branch, and returned by the Athabasca and Red Rivers.

Excursions for hunting and trapping were made in 1832 and 1833 by Mr. J. O. Pattie and Captain Bonneville. They first traversed the Colorado country and California, and Bonneville "led a band of more than a hundred men, with wagons, horses, and mules, from Missouri to the countries of the Colorado and Columbia, in which he passed two years in hunting." About this time Captain Wyeth formed a scheme similar to that of Mr. Astor for establishing trade between China, Eastern Asia, and the United States by way of the Columbia River, and for that purpose he organized the Columbia Fishing and Trading Company. A ship was sent to Columbia River, and a party was arranged to carry by land goods and men across the mountains. With the men Wyeth went in person, and established a port at the mouth of Willamette River. But it was soon abandoned, as the Hudson Bay Company, by peaceful opposition, counteracted all his efforts to retain the place. His journals and a narrative of his adventures have been published.

In the year 1834 the first body of American emigrants settled in the Columbia region, and were conducted by the Methodist missionaries, Lee and Sheperd. Other religious associations became active. In 1835 the Rev. Samuel Parker made a journey to Oregon, and was followed by Roman Catholic as well as Protestant missionaries.

American trappers, hunters, and fur-traders were steadily traveling and trading at the south; also in the neighborhood of the Colorado and towards California on paths opened and beaten by Ashley, Smith, Pattie, and Bonneville. In this way the attention of the Government of the United States became directed to the Pacific slope, on which citizens had established large interests. In furtherance of them Mr. Forsyth, Secretary of State, in 1836, proposed the first official exploring expedition westward. In November, 1835, President Van Buren accordingly directed William A. Slacum, an officer of the United States Navy, to proceed to the western coast and endeavor "to obtain there all such information, political, physical, statistical, and geographical as might prove useful or interesting to the Government." The instructions and particulars of the voyage are given in Senate Doc. No. 24, second session, Twenty-fifth Congress.

Mr. Slacum traveled through Mexico to Guaymas, and left that port on the 1st of June, intending to reach the Columbia River by land. In Sonora he bought mules and provisions, but was compelled to abandon the journey, being informed by Dr. Keith, who had just then come from the north, that the land route to Oregon was impracticable at that season of the year. Slacum returned to Guaymas, chartered the Loretano, a vessel of 12 tons, and in her set sail, on the 7th of July, for the Columbia River entrance. After being at sea nineteen days and making only 400 miles he was, near Cape San Lucas, forced by furious head winds to put into Mazatlan in distress and there abandon the schooner. An English barge, the Falcon, was then at La Paz, in Lower California, and about to sail for the Sandwich Islands. Slacum took passage, hoping to get from thence to his intended destination. He reached the Sandwich Islands on the 5th of

November, and there chartered the American brig Loriot, sailed and arrived at the mouth of the Columbia on the 22d of December, 1836. His purpose was to explore the river as far as practicable, then pass along the coast to the Russian settlement at Bodega, and, leaving the vessel, to cross the Indian country on his return to the United States. Slacum made some useful observations. He sounded and plotted a chart of the mouth of the Columbia, and added sailing directions. He procured charts and sketches from the officers of the Hudson Bay Company, and from them compiled a map of the coast and country south of the Columbia. Four rivers appear on it, namely, the Klamet, Rogues, Cowis, and Umpqnah. These had never before been laid down on any published map. Slacum gathered some facts of interest relating to the history of the establishments of the Hudson Bay and Russian Fur Companies, and then crossing the continent he returned to the United States.

UNITED STATES EXPLORING EXPEDITION 1838–'41.

On the 18th of May, 1836, an act of Congress authorized the President of the United States to fit out an expedition for exploring the South Sea, and determining the position of Pacific islands and countries lying near the track of American vessels. Six vessels were made ready, namely, the Vincennes, Peacock, Porpoise, Relief, Sea Gull, and Flying Fish, and under command of Lieut. Charles Wilkes, U. S. N., the fleet sailed from Chesapeake Bay on the 18th of August, 1838. He was directed to be at the Sandwich Islands in the spring of the year 1840, to sail from thence to the northwest coast of America, and "make there such surveys and examinations, first, of the territory of the United States on the seaboard, and of the Columbia River, and afterwards along the coast of California, with special reference to the bay of San Francisco, as he could accomplish, until the month of October following his arrival." Special attention was to be given, when practicable, in regard to the geography and hydrography of the various places visited.

Lieutenant Wilkes was detained in the southern part of the Pacific Ocean a year longer than was contemplated when the instructions issued. The Sea Gull was wrecked. With the Vincennes and Porpoise he left the Sandwich Islands on the 5th of April, 1841, the last-named vessel being in charge of Lieut. C. Cadwallader Ringgold. The Peacock and Flying Fish had been sent under Capt. William Hudson from the Sandwich Islands to explore parts of the Pacific, with directions to join the chief of the squadron at the Columbia River by the end of April, 1841.

Wilkes arrived there on the 28th of April with the intention of entering, but the sea on the bar was heavy, and he concluded to sail for the Strait of Fuca, and there begin surveying operations. He entered the strait on the 1st of May, and, following the track of Vancouver to Port Discovery, Port Townsend, and Admiralty Inlet, hastened to the anchorage at Nisqually, where the Hudson Bay Company had an establishment, and there moored his ships on the 11th of May. For upwards of eight weeks he made that his station, and organized surveying parties which were sent out in different directions. To the north Ringgold was sent in the Porpoise with two boats to take up the survey of Admiralty Inlet, proceed to Fraser River, and as far as Johnstone's Inlet. Four boats were intrusted to Lieutenant Case for the survey of Hood's Canal and Puget Sound.

A land party was sent under Lieutenant Johnson to the east, with directions to land and explore the interior as far as the Cascade Mountains and the middle reaches of the Columbia River.

Lieutenant Wilkes in person conducted a party overland south to the Lower Columbia, to start a survey by the crew and boats of the Peacock, that vessel being due from her cruise at the south. All the parties moved about the middle of May, leaving Lieutenant Carr in charge of the ship station near Nisqually and of operations at the observatory which had been erected there. The two land parties recorded observations of interest, but of course none bearing on hydrography. Attention will therefore be limited to the ship expeditions. The survey of Hood's Canal by Lieutenant Case was satisfactory. The canal was not found to terminate at the place supposed to be its end by Johnstone (Vancouver's lieutenant) in 1792, but to stretch, after a short turn to the east, 10 miles farther towards Puget Sound.

Lieutenant Case then surveyed Puget Sound, and was soon joined by Captain Wilkes. The joint party had seven boats with efficient crews, and the survey of the numerous branches of the

sound was completed in the course of a week. Several inlets, not named on Vancouver's chart were at this time named for officers of the United States Exploring Expedition, as Budd's Inlet, Eld's Inlet, Totten Inlet, &c.

On the 17th of July, all the parties excepting the one with Ringgold in the Porpoise were again at the station near Nisqually; and a company was organized for the survey of Gray's Harbor and Shoalwater Bay. Lieutenant Eld was intrusted with that work. After his departure the Vincennes also left Nisqually, and, steering northward, took another station near Dungeness, in the Strait of Fuca, on the 20th of July. Ringgold, on the same day, returned from his northern survey. He had left Nisqually on the 15th of May and commenced work in Admiralty Inlet. The space then sounded he named Commencement Bay, as it had been left nameless on Vancouver's chart. From thence Ringgold went north, surveying and naming many points and indentations on his way. On the 20th he entered the Port Orchard of Vancouver, and surveyed it in the course of nine days. It was found to communicate at the north through a strait with another bay or branch of Admiralty Sound (Port Madison) which had been overlooked by Vancouver in his short visit to that vicinity.

Ringgold then entered what had been called by Vancouver Possession Sound, and surveyed Port Gardner, Penn's Cove, &c. On the 18th of June he was at Deception Passage, which Vancouver judged to be insufficient for the passage of ordinary vessels.

Early in July all the bays and islands northward of Deception Passage were surveyed as far as Fraser River, and from that entrance Ringgold returned and joined the Vincennes at New Dungeness on the 20th of July, after laborious operations which occupied his party two months.

It was the intention of Captain Wilkes to survey minutely the Gulf of Georgia. Accordingly, as soon as practicable, he sent the Porpoise, under charge of Ringgold, to Fraser River with directions to sail from thence through Johnstone's Strait around Vancouver Island, while Wilkes himself should explore the Haro Canal. Both parties started on the 25th of July. But these operations were interrupted by the loss of the Peacock on the bar of Columbia River. It became necessary to proceed to that place without delay. Captain Ringgold was recalled from Fraser River to New Dungeness and Wilkes hastened with his boats, having completed all that "was essential for the navigation of Canal De Haro."

Both vessels took courses westward, surveying on the way two small harbors, San Juan, on the south side of Vancouver Island, and Neeah, near Cape Flattery. They arrived at the mouth of the Columbia on the 7th of August, where an English vessel was purchased to receive the crew of the wrecked ship Peacock. The craft was named the Oregon, and needful arrangements were made for continuing the objects of the expedition. Under Ringgold the Vincennes was sent to survey San Francisco Bay and the Sacramento River.

A large land party in charge of Lieutenant Emmons was sent to travel from the Columbia along the Willamette; to examine also the Sacramento and San Francisco Bay; and Wilkes, with the Porpoise, the Flying Fish, and the boats saved from the wreck of the Peacock, commenced the survey of the Columbia on the 9th of August.

Mr. Eld and his party had left Nisqually on the 19th of July, and traveling through the interior passed several lakes and rivers, mostly branches of the Chikeeles, a tributary of Gray's Harbor, where they arrived early in August. The survey of that vicinity, by means of boats and the canoes of neighboring Indians, was completed in the course of three weeks. Lieutenant Eld subsequently traced the coast southward to Cape Disappointment, and passing Shoalwater Bay in a canoe reached Baker's Bay on the last day of August. His performance of duty is specially commended in the report of Captain Wilkes. The commander himself was employed on the Columbia during August, September, and part of October, and the survey was carried to the vicinity of the cataracts. On the 10th of October, when the operations were finished, Wilkes crossed the bar of the Columbia and sailed in the Porpoise to San Francisco. The Flying Fish was at the same time ordered to examine the lower part of Umpquah River, but the attempt to enter was not successful. On the 19th of October the Porpoise reached Saucelito Harbor in San Francisco Bay, and there the Vincennes was found at anchor. Ringgold had arrived on the 14th of August and surveyed the Sacramento as far up as Feather River. He had also examined San Pablo Bay and the mouth of the San Joaquin. The party under Mr. Emmons arrived in San Francisco Bay on

the 28th of October, having followed and surveyed the trail from the Columbia River. Some of the intervening rivers were seen and the party examined the valleys, particularly those of the Elk, the Umpquah, Rogue, and Klamath Rivers.

All the exploring parties having returned, preparations were made for sailing from San Francisco with the first fair wind. The latitude of Saucelito Fort, where an observatory had been erected, was found to be 37° 50′ 50″ N., and the longitude, by a series of observations on moon culminating stars, 122° 25′ 36″ west of Greenwich. These determinations are in tolerable accord with those of Beechey, and were used provisionally by the officers of the United States Coast Survey at the outset of their operations.

The exploring expedition left San Francisco on the 1st of November, intending to sail to the Philippines. Captain Wilkes went south as far as the Bay of Monterey. The Porpoise was sent with dispatches for Washington, D. C. As the principal hydrographic results of the expedition we may point out the examination and survey of the lower reach of the Columbia River, the survey of Gray's Harbor, the Strait of Fuca, Admiralty Inlet, and the Haro Archipelago; also of the Bay of San Francisco and Sacramento River. Close examinations were found impracticable at the Gulf of Georgia, at Vancouver Island, and along the coast between Columbia River and the Golden Gate, weather being unfavorable.

OREGON AND CALIFORNIA. 1842–1846.

Capt. John Charles Fremont's first expedition to the West, in the year 1842, was limited to the country between the frontiers of Missouri and the South Pass of the Rocky Mountains, along the courses of the Kansas and Great Platte Rivers. Subsequently he recorded observations for latitude and longitude from the east across to the foot of the mountains. His western limit was the high peak which bears his name on maps published since that journey.

In the spring of 1843 Fremont again went westward, with instructions from the Bureau of Topographical Engineers "to connect his reconnaissance of 1842 with the surveys of Commander Wilkes on the coast of the Pacific Ocean, so as to give a connected survey through the interior of the North American continent."

Mr. Fremont was accompanied on this expedition by an able engineer and draughtsman, Mr. Charles Preuss, and provided with good instruments for determining geographical position, time, temperature, &c. His course was at the outset directed toward Oregon. In August, 1843, he reached the heads of the south branch of Columbia River, and passed down to Fort Vancouver, where he arrived in November, and in accordance with instructions his reconnaissance was there connected with the surveys of Captain Wilkes. Fremont was prevented by the rainy season from going quite to the Pacific; so, returning to the Dalles of the Columbia, he passed from thence southward into the country along the Cascade range of mountains and the Sierra Nevada. Crossing the head of the Klamath the party at the close of the year were near the mountains, and circumstances constrained him to attempt to cross them in midwinter. Under many difficulties and dangers the party in the beginning of February reached the snowy peaks, "and saw from thence below them, dimmed by the distance, a large snowless valley, bounded on the western side, at the distance of about 100 miles, by a low range of mountains, which were recognized as those bordering the coast." Between them and the low coast range was the valley of the Sacramento. Soon after water was seen flowing towards the Pacific, and "a shining line of water was discovered directing its course towards another broader and larger sheet," which were "the Sacramento and the Bay of San Francisco." In the spring of the year 1844 the party traveled from the Lower Sacramento, along the western slope of the Sierra Nevada, through the valley of the San Joaquin. Fremont returned in a northeastern direction to the Rocky Mountains, and so again reached the banks of the Mississippi. His observations on that part of his route—"from the heads of the Sacramento to the heads of the San Joaquin, and the valley which collects all the waters of San Francisco Bay, proved that there was no such river as the fabulous Buenaventure, which had been said to come down from the base of the Rocky Mountains and to open a communication with San Francisco Bay, far to the interior." He adds:

"This want of interior communication from San Francisco Bay, now fully ascertained, gives

great additional value to the Columbia, the only great river on the Pacific slope of the continent which leads from the ocean to the Rocky Mountains, and opens a line of communication from the sea to the valley of the Mississippi."

On his third expedition, in 1845 and 1846, Frémont traversed the central parts of the great interior basin, passed the Sierra Nevada at the southern end of the range, crossed the San Joaquin Valley, went to the south end of San Francisco Bay, and passed up the valley of the Sacramento to the heads of that river and to the sources of the Klamath. His large map of Oregon and Upper California was published by order of the United States Senate in the year 1848.

In reference to geographical positions Mr. Frémont remarks that the line of astronomical observations carried by him across the continent reached the Pacific Ocean on the northern shore of the Bay of Monterey, and that when the newly established positions were marked on the map it was found that they carried the line of coast about 14 miles west of the longitudes given by Vancouver, and the valleys of the Sacramento and San Joaquin about 20 miles east of the longitudes laid down on former maps. Comparison showed that the positions agreed with the observations of Captain Beechy and Captain Belcher, and also with those of the Spaniard Malaspina. "Vancouver (says Frémont) removed the coast line as fixed by Malaspina, and the subsequent observations carry it back." That remark, however, needs qualification. Coast survey determinations fix the coast about midway between the positions assigned by Malaspina and Vancouver.

MAJ. W. H. EMORY, U. S. CORPS TOPOGRAPHICAL ENGINEERS, 1846-'47.

In the year 1846 a detachment of United States troops was sent to operate in the northern provinces of Mexico and California. As the route was through unexplored regions, it was suggested that some of the officers "should be employed in collecting data which would give the Government an idea of the region traversed." For this purpose a party of topographical engineers went under the command of Lieutenant, afterwards Major, Emory, with orders to perform military service, in case of necessity, under Colonel Kearny.

The party was furnished with two chronometers, two Gambey sextants, and other instruments, with which astronomical observations were made between Saint Louis, on the Mississippi, and San Diego, in California.

Lewis and Clarke, in the year 1806, were the first Americans who carried astronomical instruments across the Rocky Mountains and connected that part of the western coast which lies near the mouth of the Columbia with the Mississippi region by a chain of observations. And, as previously stated, in the year 1813 Mr. Thompson, astronomer and surveyor of the Hudson Bay Company, connected the northern parts of the Columbia with the region around Hudson's Bay. In the course of nearly three hundred years it had been crossed by Coronado and by the early missionaries; but Emory marked the first well-defined line through those regions and developed the physical features of a country until then but little known. He adopted the meridian of Fort Leavenworth as determined by Mr. Nicollet, and to it referred all his subsequent determinations for longitude.

At the end of June, 1846, Major Emory started from Leavenworth, carried on a nearly uninterrupted series of observations for latitude and longitude, and on his route fixed the positions of one hundred and twenty places, all of them determined by repeated observations, and some, when a longer stay in camp permitted, by series of combined observations. At San Diego, where he arrived in December, 1846, his longitude determinations were compared with those of Sir Edward Belcher, and were found nearly accordant. All the geographical positions ascertained by Major Emory were laid down on a map which was published in the year 1847. That officer also recorded a series of barometrical observations, and these availed for an approximate profile of the ground surface along the route. The altitudes of the "divides" and passes near the southern section east of San Diego were found to be about 3,000 feet. Previously the heights had been roughly estimated by mariners at a distance, merely from eye-sight. Subsequently Major Emory traced the southern boundary line of the United States. The initial point then fixed on the

Pacific coast has been adopted, in respect of the latitude and longitude, in the operations of the Coast Survey. Having brought down the history of development to the inception of that work, the reader is referred to the annual reports of the Superintendent of the Survey.

Titles of copies of maps of the Pacific coast of North America or parts thereof.

[Collected by Dr. J. G. Kohl to illustrate his history of discovery and exploration on that coast.]

	Description of map.	Year.
	Maps of the west coast before the discovery of California or before Cortes:	
A	From a manuscript map of the British Museum	1530
B	Mexico and Japan	1540
C	Rotz's Mexico and California	1542
	Maps between 1530 and 1579, or from Cortes to Drake:	
1	From a map of Domingo del Castillo	1541
2	A Portugnese map of California, by J. Freire	1546
3	The coast of California, by J. Freire	1546
4	From the New World, of T. Gastaldi	1560
5	From a map of Bolognini Zaltieri	1566
6	Mexico and California, by Diego Homem	1568
7	California, from a map of Juan Martines	1578
	Maps of the Northwest coast between 1579 and 1697, or from Drake to the Jesnits:	
1	From a map of California, by M. Lock	1582
2	From a map of Molineux	1592
3	From a map of C. de Judacis	1593
4	From the great map of the world of Hakluyt	1598
5	Map of the discoveries of Viscaino	1602 1603
6	California, by Sanson	1656
7	The Californian Gulf, by Coronelli	1691
8	Map of Western America and Eastern Asia, or "The Country of Yesso," by the Dutch geographer Lugtenberg	1706
	Maps of the period between 1697 and 1769, or from the Jesnits to the Franciscans:	
a	Map of the discoveries of Father Kino	1698 1701
b	From a map of the River of the West by Bellin	1748
c	Map of the supposed discoveries of De Fonte, by P. Buache	1750
d	A Spanish map taken by Anson in	1743
	and published by Venegas in	1757
e	Copy of the same map as published according to act of Parliament, by Jefferys in	1753
f	From a map published by the Academy of St. Petersburg	1758
g	From a map of California by Don Antonio Alzate	1772
	[NOTE.—With reference to this map, Dr. Kohl observes that it may serve to show the knowledge of the West coast which the Mexicans in general possessed of it just before the discoveries of the Franciscan friars.]	
h	The Northwest coast, from a map of J. N. Buache after Engel and Vaugondy	1775
	Maps and charts between the years 1768 and 1794, or from the first voyages and travels of the Franciscan friars to Vancouver:	
1	Chart of Upper California, by Miguel Constanso	1770
2	Copy of a map of the Northwest coast which was constructed after the expedition of Heceta and Bodega	1775
3	Map showing results of combined sea and land expedition round the Bay of San Francisco under Quiros and Moraga; also the route of Father Junipero Serra	1776 1777
	[NOTE.—Dr. Kohl observes that one of the most interesting features of this map is that it is the first which shows the whole of the Bay of San Francisco.]	

Titles of copies of maps of the Pacific coast of North America or parts thereof—Continued.

	Description of map.	Year.
4	From Cook's map of the northwest coast	1778 1779
5	From a map of the English geographer Barrington, on which are combined the discoveries of the Russians, of Bodega, and of Cook	1780
6	From a map by M. A. Mascaro, showing discoveries and travels in the interior of California	1782
7	From a map of the survey and voyage of La Pérouse	1786
8	From a Mexican chart, showing the settlements and travels of the Franciscan missionaries	1787
9	Part of Dixon's map of the northwest, showing his discoveries to the north of Vancouver Island	1787
10	From a chart made by Captain Meares, showing his discoveries on the coast of Vancouver Island, and of Washington and Oregon Territories	1790
11	From another chart of Captain Meares	1790
12	De la Borde's map of comparison, combining and comparing the surveys of Cook (1778), La Pérouse (1786), Dixon (1787), and of Meares (1789)	1792
13	From the map of Captain Marchand	1792
14	From a general chart composed by Don Juan Francisco de la Bodega	1791
15	Map of Vancouver Island, by Captain Ingraham	1792
16	From a map of the coast of California and Oregon by Ingraham, from data supplied by Captain Gray	1792
17	From a map showing Vancouver's discoveries on the northwest coast	1792 1794
18	Quadra and Vancouver Island, after Vancouver	1792
19	Vancouver Island, after Galiano and Valdes	1792
20	From Vancouver's survey of the whole coast of New Albion, or Upper California	1792 1794
21	California, from a chart of Galiano and Valdes	1802
	MAPS FROM 1794 TO 1850.	
22	"Entrada de Juan de Fuca," from a Spanish admiralty chart	1795
I	California, from Tanner's map	1829
II	Map showing the extent of Captain Belcher's surveys on the west coast	1837 1839
III	Map of M. Duflot de Mofras, showing the routes of the Canadian trappers and hunters from the mouth of the Columbia River to the Sacramento	1844
IV	Map of the United States Exploring Expedition, under Captain Wilkes, U. S. N	1841
V	From a map published by De Mofras in his atlas, showing the coast from Bodega Harbor northward, as derived from Russian sources	1840
VI	Copy of Greenhow's map of the west coast	1844
VII	Copy of a map of part of the west coast, made by Lieut. W. P. McArthur, U. S. N., Assistant, Coast Survey.	1850

[NOTE.—Accompanying the collection of maps above enumerated is a general map, compiled by Dr. Kohl, and similar in character to those compiled by him for the coasts of the Atlantic and Gulf of Mexico.]

